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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Title:
Perfect score:
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                                                                                                                                                                                                                            Result
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Scoring table:
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 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                               seq length: 0
seq length: 2000000000
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1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
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47
100.0
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                                                                                                                                                                                                                    Match
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GenCore version (c) 1993 - 2004
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AAY95327
AAW14944
AAY95321
AAY9532278
AAY32278
AAY32285
AAO17734
AAU78121
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ABO79571
ABB48788
ABU33032
AAW21828
ABB44199
AAM38152
ABB27077
AAM77933
                                                                                                  AAY41079
AAY41078
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AAU40963
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Compugen Ltd
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                                                                                                Aay95324 Human cos
Aay32278 Cat CD86
Aay32285 Feline CD
Aao17734 Feline CD
Aau78121 Feline CD
Aau78121 Feline B7
Aay41078 Canine B7
Aay41076 Canine B7
Aay41076 Canine B7
Aay41076 Canine B7
Abu33032 Protein e
Aaw53916 P. putida
Aam21828 Peptide #
Abb44199 Peptide #
Aam38152 Peptide #
Abb27077 Protein #
Aam77933 Human bon
Aam65230 Human bra
Abg59572 Human liv
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Aaw14944 Chimeric
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                                                                                  Abm37482 Propionib
Abo79571 Pseudomon
                                                                                                                                                                                                     Aay95328 OVA323-33
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AAY95328
ID AAY9
                                                  Peptide
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ADD18610	ABR58321	AAM79823	AAM78839	ADJ66594	ADJ68477	AAB63241	ABR58345	ADK40914	AAM41307	AAM39521	AAR99251	AAW88525	AAB94369	ABB92863	ABU23605	ABB97746	ABB09140	AAB63884	ABG46955
Add18610	Abr58321	Aam79823	Aam78839	9	m	5	Abr58345	7	Aam41307	Aam39521	10	m		Abb92863	0	Abb97746	Abb09140	Aab63884	569
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12-SEP-2003
25-SEP-2000
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The present sequence is that of chimeric peptide 4 comprising T-cell epitope OVA323-339 from chicken egg albumin (ovalbumin) and a B-cell epitope comprising amino acids 113-121 of pig co-stimulatory molecule
                                                                                                                                                  Novel methods for improving tolerance to a xenograft comprising immunizing a mammal with a T-cell epitope and a B-cell epitope.
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Sus scrofa.
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                                                                                                   Disclosure; Page 23; 81pp; English.
                                                                                                                                                                                                                             WPI; 2000-442537/38.
                                                                                                                                                                                                                                                                                                                                                                          19-DEC-1998;
23-OCT-1999;
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99GB-00025015
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18. .26
/note= "B7-2 amino acids 113-121"
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                                                                                                                         Novel methods for improving tolerance to a xenograft comprising immunizing a mammal with a T-cell epitope and a B-cell epitope.
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23-OCT-1999;
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Sus scrofa.
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25-SEP-2000
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The present sequence is that of chimeric peptide 3 comprising T-cell
                                                                  Disclosure;
                                                                                                                                                                                                                  WPI; 2000-442537/38.
                                                                                                                                                                                                                                                                              Lechler RI,
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epitope; ovalbumin; chicken.
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                                                               Page 23; 81pp; English
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ilarity 100.0%;
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18. .30
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Best Local
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Antibodies binding to porcine but not human cell interaction proteins useful to treat and assay for rejection of xenografted porcine organs,
                                                                                                                                                                                                                                                                                                                    Key
Peptide
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26-SEP-1996;
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16-JUN-1997
                                       WPI; 1997-212855/19.
N-PSDB; AAT62939.
                                                                              Mueller JP,
                                                                                                       (ALEX-) ALEXION PHARM INC.
                                                                                                                                                                        27-SEP-1996;
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96US-00004489.
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/label= Histidine_tag
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Matches 9
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                                                                                                                                                                                                                                                                                                                                                           Co-stimulatory molecule; CD86; B7-2; pig; immunosuppressive; xerotransplantation; organ transplant; vaccine; epitope.
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23-OCT-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAY95321 standard; protein; 325 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 250 AA;
           (MLML-) ML LAB PLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 GLVPIHQMS 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GLVPIHOMS 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; ilarity 100.0%; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Page
                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                               98GB-00027921.
99GB-00025015.
                                                             99WO-GB004200
                                                                                                                          /note=
151. .1
/note=
                                                                                                                                                                                      /note=
                                                                                                                                                                              109.
                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                   /note=
                                                                                                                                                                                                          /note= "peptide 1"
                                                                                                                                                                                                                                                     note:
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                                                                                                                                                                                                                                note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          69-70; 105pp;
                                                                                                                                                                                                                       . 90
                                                                                                                                                                                                                                                             nte= "peptide 8"
.40
                                                                                                                                                                                                   .104
                                                                                                                                                                                                                                                                                    . 32
                                                                                                                                                         e= "peptide 3"
.121
                                                                                                                                                                                                                                            .
88
                                                                                                                                   e= "peptide 4"
.162
                                                                                                                                                                             .121
                                                                                                                                                                                                                               "peptide 10"
                                                                                                                                                                                                                                                   "peptide 2"
                                                                                                                                                                                                                                                                                             "peptide 9"
                                                                                                                          "peptide 6"
                                                                                                                                                                                      "peptide 5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 47;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0.17;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 250;
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RRESULT 5
AAY95324
ID AAY9
ID AAY9
XX AAY9
XX AAY9
XX Huma
XX Co-s
XX Homo
XX Homo
XX Hept
FT Pept
XX W020
XX W19-J
XX I19-J
XX II9-J
XX III9-J
XX IIII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence is that of pig co-stimulatory molecule CD86 (B7-2), CC as deduced from an isolated cDNA clone (see AAA49661). CD86 plays a key crole in T cell costimulation. The invention relates to a novel strategy for inhibiting costimulation by porcine cells of human T cells, with particular importance in the context of xerotransplantation of porcine crogans. Recipients are immunised with hybrid synthetic peptides comprising a T cell epitope conjugated to sequences of the porcine costimulatory molecules CD80, CD86 or CD40, such as peptides 1-10 of CD86 (see also AAY95325-33). Peptides that induce antibodies specific for regions of costimulatory molecules involved in binding to their counter-cc receptors on human cells (CD28 and CD14) are capable of blocking the cheivery of costimulation. Once the antibody response has been induced, the transplanted organ will recall this response due to the expression of the costimulatory molecules, thereby sustaining the response, and cproviding an endogenous mechanism of costimulatory blockade. The method is useful for improving the tolerance of a host to xenografts,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
Matches
                                                                                                                                                                                                                                                                                                Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Co-stimulatory molecule; CD86; B7-2; human; immu xerotransplantation; organ transplant; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human costimulatory molecule CD86 (B7-2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAY95324;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY95324 standard; protein; 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Fig 6; 81pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel methods for improving tolerance to a xenograft comprising immunizing a mammal with a T-cell epitope and a B-cell epitope.
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                                                                                                                                                                                                                   WO200037102-A2
                                                                                                                                                                                                                                                                                                                                                 Peptide
                                                                                                                                                                                                                                                                                                                                                                                                       Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lechler RI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Peptide
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DB; AAA49661.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9; Conserv
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                                                                                                                                                                                                                                                                                                                                                      101.
                                                                                                                                                                                                                                                                                             /note=
136. .1
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
19. .42
                                                                                                                                                                                                                                                           /note= "epitope'
                                                                                                                                                                                                                                                                                                                                                                                                                                    note=
                                                                                                                                                                                                                                                                                                                                                                          note= "epitope"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 47; DB 3;
Pred. No. 0.23;
; Mismatches 0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     immunosuppressive;
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19-DEC-1998; 23-OCT-1999;

98GB-00027921. 99GB-00025015. 99WO-GB004200

17-DEC-1999;

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RESULT 6
AAX32278
ID AAX3
XX AAX3
XX AAX3
XX AAX3
XX AAX3
XX CD86
DT 15-F
XX CD86
XX CD86
XX CD86
XX Feli
XX F
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S
Matches 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CD86; B7-2; ligand; cat; vaccine; feline immunodeficiency virus; FIV; feline leukaemia virus; feline infectious peritonitis virus; feline panleukopaenia virus; feline calicivirus; feline reovirus-3; feline rotavirus; feline coronovirus; feline syncytial virus; feline sarcoma virus; feline herpesvirus; feline Borna disease; rabises virus; chlamydia; Toxoplasmosis gondii, Dirofilaria immitis; parassite; autoimmune disease; transplant rejection; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cat CD86 (B7-2) ligand.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-SEP-2003
15-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAY32278;
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WPI; 2000-052972/04
                                                             Collison EW, Hash SM,
                                                                                                                                                                            01-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                     WO9957271-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                Felis catus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAY32278 standard;
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                                                                                                                                                                                                                                          30-APR-1999;
                                                                                                                                                                                                                                                                                                           11-NOV-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
ilarity 100.0%;
Conservative (
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(first entry)
                                                                                                                 A & M SYSTEM
                                                                                                                                                                                  98US-00071699
                                                                                                                                                                                                                                             99WO-US009502
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                                                             Choi I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Dorling
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Novel feline proteins used to produce feline vaccines which prevent infectious disease or to promote growth in homologous or heterologous
                                                                                                                                                         N-PSDB; AAZ34785
                                                                                                                                     species.
                                                                                                                           Fig 3A; 186pp; English
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The present sequence represents feline CD86 (B7-2) ligand, as predicted from isolated cDNA of peripheral blood mononuclear cells. The coexpression of CD86 with the costimulatory molecules CD28 (see AAY32279) and a tumour antigen or an antigen from a pathogenic organism has the cost inverse of CD86 with CTLA-4 (see AAY32280) has the ability to activate or enhance activation of T-lymphocytes. Coexpression of T-lymphocytes. The invention provides isolated nucleic acids encoding feline CD86 ligand, feline CD80 (B7-1) ligand, feline CD28 receptor or celine CTLA-4 (CD152) receptor, as well as vectors comprising the nucleic acids. It also provides vaccines comprising the CD80, CD86, CD28 or CTLA-4 polypeptides and celine comprising immunogens derived from pathogens, especially feline celine reprivate (FTV), feline leukaemia virus, feline infectious peritonitis virus, feline panleukopaenia virus, feline calicivirus, celine revirus-3, feline rotavirus, feline calicivirus, feline rotavirus, rabies virus, chlamydia, Toxoplasmosis gondii, Dirofilaria companies, pathonydia, Toxoplasmosis gondii, Dirofilaria companies, pathonydia, Toxoplasmosis and vaccines capable of enhancing an immune response, autitable for treating an autoimmune cellocation of the cellocation of treating an autoimmune cellocation of treating an autoimmune cellocation of treating an autoimmune cellocation of the cellocation of treating an autoimmune cellocation of the cellocation of treating an autoimmune cellocation of the cellocation of treating an autoimmune cellocation of treating an autoimmune cellocation of the cellocation of treating an autoimmune cellocation of treating an autoimmune cellocation of the cellocation of treating an Example 1A;

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В
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                                Query Match
Best Local S
Matches 8
                                                                   Sequence 329 AA;
120 GLVPMHOMS
                1 GLVPIHQMS 9
                                 Similarity
8; Conserv
                                  Conservative
                                           93.6%;
                                 Score 44; DB:
Pred. No. 1;
1; Mismatches
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                                                    ω
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                                                    Length 329
                                   0
                                   Gaps
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RESULT 7
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      WPI; 2000-062155/05
                       Winslow BJ,
                                                              01-MAY-1998;
                                                                              30-APR-1999;
                                                                                              11-NOV-1999
                                                                                                              WO9957295-A1
                                                                                                                              Felis catus
                                                                                                                                             tumour; cancer; therapy.
                                                                                                                                                     CD86; B7-2; feline; cat; recombinant virus; vaccine; immunomodulator;
                                                                                                                                                                      Feline CD86 (B7-2).
                                                                                                                                                                                     12-SEP-2003
28-FEB-2000
                                                                                                                                                                                                                            AAY32285 standard; protein; 329
                                      SCHERING-PLOUGH LTD.
SCHERING-PLOUGH VETERINARY CORP
                                                                                                                                                                                    (revised)
(first en
                      Cochran MD
                                                               98US-00071711
                                                                               99WO-US009504
                                                                                                                                                                                      entry)
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g)

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RESULT 8
AAO17734
ID AAO1
XX AAO1
XX AAO1
XX AAO1
XX AAO1
XX Fel
XX Cat
XX Fel
XX Fel
XX V11
XX V21
XX V21
XX V3
PN US
XX V3
PFR 02
XX V3
PFR 07
PFR 07
PFT 97
PFT 
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
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CTLA-4.
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                                                               New recombinant virus, useful for immunizing felines to prevent or treat feline immunodeficiency virus, comprises foreign nucleic acid encoding feline cytotoxic T lymphocyte accessory molecules CD28, CD80, CD86 or
                                                                                                                                                                                                                N-PSDB; AAL46840.
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This invention relates to the DNA and protein sequences encoding a soluble CD80 ligand, soluble and membrane-bound receptor and soluble or membrane bound CTLA-4 receptor. The invention also relates to a vaccine comprising an effective amount of these receptor proteins. A vaccine is useful for inducing immunity or enha an immune response in a cat. The protein sequences of the invention useful for suppressing an immune response in a feline suffering from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cat; vaccine; feline immunodeficiency virus; FIV, immunosuppressant; feline infectious peritonitis; CD80 ligand; CD86 ligand; CD88; recep CTLA-4; vaccine; rabies; autoimmune disease; organ transplant; toxoplasmosis gondii; flea; parasite; panleukopaenia; feline leukaem FeLV; calcivirus; rotavirus; reovirus type 3; cornavirus; herpes;
                                                                                                                                                                                                                                                                                      Polynucleotide encoding polypeptide of CD80 ligand, CD86 ligand, CD28 receptor or CTLA-4 receptor as vaccine for inducing immune response in feline suffering from autoimmune disease or tissue or organ transplant
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Best Local
The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, and the encoded proteins allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection,
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17-APR-1998;
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DB; AAZ27929, A/
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                                                                                                                                                                                                                                                                                                                                  Page 116-119;
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98US-00062597
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Pred. No.
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Best Local :
                                                                                                         The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection, diagnosis and drug screening
                                                                                       Sequence
                                                                                                                                                                                                                                                   New isolated B7 and CTLA4 nucleic acids, used to develop products for treating, e.g. autoimmune and atopic diseases.
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N-PSDB; AAZ27921, AAZ27923.
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                                                                                                                                                                                                                                                  treating,
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17-APR-1998;
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                                          Local Similarity
les 7; Conserv
119
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98US-00062597.
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 127
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77.8%;
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Pred. No.
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Pred. No.
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RESULT 12 AAY41076

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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection,
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                                                                              SAPHO syndrome; synovitis; acne; pustulosis; hypertosis; osteomyelitis; uveitis; endophthalmitis; bone; joint; central nervous system; EIISA; inflammatory lesion; acne vulgaris; enzyme linked immunosorbent assay; dermatological; osteopathic; neuroprotectant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New isolated B7 and CTLA4 nucleic acids, used to develop products for treating, e.g. autoimmune and atopic diseases.
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17-APR-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                AAU40963 standard; protein; 303
                                                                                                                                                                                                                           Propionibacterium acnes immunogenic protein #1859.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             119
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Page 97-99; 148pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GLVPMHQMN 127
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                                                                                                                                                                                                                                                                                    (first entry)
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98US-00062597.
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Pred. No.
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CC P. acnes is also involved in infections of bone, joints and the central CC nervous system, however it is particularly involved in the inflammatory CC lesions associated with acne vulgaris. A method for detecting the CC presence or absence of P. acnes in a patient comprises contacting the CC sample with a binding agent that binds to the proteins of the invention and determining the amount of bound protein in the sample. The CC specific for P. acnes proteins. These antibodies can be used to downregulate expression and activity of P. acnes polypeptides and therefore treat P. acnes infections. The antibodies can be used as CC diagnostic agents for determining P. acnes protein may also be used as CC diagnostic agents for determining P. acnes presence, for example, by CC diagnostic agents for meart of the printed specification, but was CC this patent did not form part of the printed specification, but was CC obtained in electronic format directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                Matches
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Best Local :
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02-JUN-2000; 2000US-0208841P
07-JUL-2000; 2000US-0216747P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequences AAU39105-AAU68017 represent Propionibacterium acnes immunog polypeptides. The proteins and their associated DNA sequences are use the treatment, prevention and diagnosis of medical conditions caused P. acnes. The disorders include SAPHO syndrome (synovitis, acne, p. acnes.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Propionibacterium acnes vaccinating against and treating acne vulgaris.
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                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
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                                                                                                                                                                                                                    ABM37482 standard; protein;
                                                                                       Acne vulgaris; antiseborrhoeic; dermatological; antibacterial;
                                                                                                                     Propionibacterium acnes predicted ORF-encoded polypeptide #2158
                                                                                                                                                       20-OCT-2003
                                                                                                                                                                                       ABM37482
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e J, Zhang Y,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             polypeptides and nucleic acids useful for diagnosing infections, especially useful for
                                                                          response;
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, Jen S, C
                                                                                                                                                                                                                       303
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Pred. No. 17;
2; Mismatches
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are used in
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Propionibacterium acnes

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ABO79571
ID ABO79
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CC encoding a Propionibacterium acres protein. The invention also relates to complypeptides encoded by the polypucleotides (ARM35624 ARM64536) and to complypeptides encompasses expression vectors and host cells comprising a complypeptide of the invention and to comprising a complypeptide of the invention; antibodies and host cells comprising a complypeptide of the invention; antibodies and solvention; an expression vectors and host cells comprising a complypeptide of the invention; a comprising a polypeptide of the invention; a complypeptide and an isolated T cell population comprising T cells prepared complypeptides, antibodies, fusion proteins, T cell populations, or comprising T cells prepared complypeptides, antibodies, fusion proteins, T cell populations, or comprising T cells prepared complypeptides, antibodies, fusion proteins, T cell populations or antigen-presenting cells that express the polypeptides, antibodies, fusion proteins, T cell populations or antigen-presenting cells that express the composition. The polypuplations or antigen-presenting cells that express the complypeptides are useful for diagnosing, preventing or treating acne complypeptides are useful for diagnosing, preventing or treating acne complypeptides are useful for be used as probes or primers for concleic acid hybridisation. The vaccine composition is useful for the stimulation of an immune response against P. acnes, or for treating acne, composition is useful for the composition is useful for the composition. The present composition is useful for the composition within the p. acnes, or for treating acne, composition is useful for persent composition. The present composition composition form part of the printed specification, but was obtained in electronic format directly from within the p. acnes solved to the composition format directly from within the p. acnes solved the composition format directly from the present and the predi
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Matches 6
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Zhang Y, Wa
Barth B, Va
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Pseudomonas aeruginosa
                                             Bacterial infection;
                                                                                     Pseudomonas aeruginosa polypeptide #11746.
                                                                                                                                    29-JUL-2004
                                                                                                                                                                               AB079571;
                                                                                                                                                                                                                     ABO79571 standard; protein; 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 303
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 1; SEQ ID NO 2158; 1481pp; English.
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Wang S, Jen S, Lod
Vallieve-Douglass J;
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                                          Pseudomonas aeruginosa infection; antibacterial
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Lodes MJ,
                                                                                                                                                                                                                                                                                                                                                                                                                          Score 38; DB 6; Length 303
Pred. No. 17;
2; Mismatches 1; Indels
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Benson DR,
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Jones R, Carter
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Matches 6
                                                                                                                                                                                                                                                                                      The invention relates to Pseudomonas aeruginosa polypeptides and the polymucleotides encoding them. The sequences are useful in diagnosis and the therefore the prophylaxis and treatment of pathological conditions, as molecular targets for diagnostics, prophylaxis and treatment of pathological conditions resulting from a bacterial infection, for evaluating a compound, such as a polypeptide, of for the ability to bind a P. aeruginosa nucleic acid, as compounts of effective antibacterial targets, as targets for antibacterial drugs, including anti-P. aeruginosa drugs, as templates for recombinant production of P. aeruginosa drugs, as templates for recombinant compounts for diagnosis and/or treatment of P. aeruginosa caused infection, and in detection of P. aeruginosa sequences or other sequences of Pseudomonas species using biochip technology. Sequences AB067826-AB084396 represent P. aeruginosa polypeptides of the invention. Note: The sequence data for this patent did not form part of the printed septence data for this patent did not form part of the printed seguences usern carefular and the printed seguences usern carefular and the sequences are the printed seguences usern carefular and the seguences are the printed seguenc
                                                                                                                                                                                                                   Sequence 103 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel isolated nucleic acid encoding Pseudomonas aeruginosa polypeptide, useful as molecular targets for diagnostics, prophylaxis and treatment of pathological conditions resulting from bacterial infection.
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N-PSDB; ABD13142.
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27-JUL-1998;
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61
                                                                                                   l Similarity
6; Conserv
                                                    1 GLVPIHOMS 9
GLTPIHQLA 69
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98US-0094190P
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                                                                                                                                 78.7%;
                                                                                                      Score 37; DB 7; Pred. No. 8.1; 2; Mismatches
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Search completed: December 15, Job time : 99.8571 secs 2004, 16:37:29

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Minimum
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Perfect score:
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Gapop 10.0 ,
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47
1 GLVPIHQMS 9
     478139 seqs, 66318000 residues
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1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*

2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*

3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*

4: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*

5: /cgn2_6/ptodata/1/iaa/PcTUS_COMB.pep:*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
   GenCore version 5.1.6 (c) 1993 - 2004 Compugen Ltd
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   20, Appl

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US-09-651-200-20
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SEQ ID NO 20
LENGTH: 325
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Best Local :
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Patent No.
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No. 6429303
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8.1 329 3 US-U8-28U-7578-23 8.1 329 3 US-U8-08-205-697A-23 8.1 329 3 US-U8-702-525-23 8.1 329 4 US-U9-667-135-3-4 8.1 329 4 US-U9-435-816A-4 8.1 329 4 US-U9-425-762-2 8.1 329 4 US-U9-837-867A-23 8.1 329 4 US-U9-847-867A-23 8.1 329 4 US-U9-847-867A-23 8.1 329 4 US-U9-841-411-26 8.1 329 4 US-U9-710-2576-23 8.1 329 4 US-U9-710-279-1908 8.1 329 4 US-U9-710-279-1908 8.1 329 4 US-U9-710-279-1908 8.1 351 4 US-U9-710-279-1908 8.1 392 4 US-U9-710-279-1908	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
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	2, Appli	24465, A	•	3121, Ap	•	1908, Ap	18, Appl	23, Appl	26, Appl	7	23, App.	2, Appl:	4, Appli	32, Appl	4, Appli	~	23, App1	Z, Appli

## ALIGNMENTS

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SS-05-51-200-20
Sequence 20, Application US/09651200
Sequence 20, Application US/09651200
Sequence 20, Application US/09651200
SEREAL INFORMATION:
APPLICANT: Green et al
APPLICANT: Green et al
APPLICANT: Green et al
ITILE OF INVENTION: Delymocyte Activation Antigen B-7 Family and
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CURRENT APPLICATION NUMBER: US/09/651,200
CURRENT FILING DATE: 2000-02-18
SHIOR APPLICATION NUMBER: 60/173909
PRIOR APPLICATION NUMBER: 60/173909
PRIOR APPLICATION NUMBER: 60/183578
SHOWSER OF SEQ ID NOS: 25
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APPLICANT: Green et al
TITLE OF INVENTION: Polynucleotides Encoding Member:
TITLE OF INVENTION: Polynphocyte Activation Antigen B
TITLE OF INVENTION: Polypeptides Encoded Thereby
FILE REFERENCE: 15966-562 (CURA-62)
CURRENT APPLICATION NUMBER: US/09/651,200
CURRENT FILING DATE: 2000-08-30
PRIOR APPLICATION NUMBER: 60/152383
PRIOR APPLICATION NUMBER: 60/172909
PRIOR FILING DATE: 1999-09-03
PRIOR FILING DATE: 1999-12-21
PRIOR FILING DATE: 1999-12-21
PRIOR FILING DATE: 2000-02-18
NUMBER OF SEQ ID NOS: 25
NUMBER OF SEQ ID NOS: 25
SOFTWARE: Patentin Ver. 2.0
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US-09-303-040-6
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CURRENT FILING DATE: 199-04-30
EARLIER APPLICATION NUMBER: 60/083,870
EARLIER FILING DATE: 199-05-01
NUMBER OF SEQ ID NOS: 82
SOPTWARE: Patentin Ver. 2.0
SEQ ID NO 6
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Patent No. 65556
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PRIOR APPLICATION NUMBER: 60//
PRIOR FILING DATE: 2000-02-18
PRIOR FILING DATE: 2000-02-18
NUMBER OF SEQ ID NOS: 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Winslow, Barbara J.
APPLICANT: Cochran, Mark D.
TITLE OF INVENTION: Recombinant Virus Expressing Foreign DNA Encoding
TITLE OF INVENTION: Feline CD80, Feline CD86, Feline CD28, Feline CTLA-4 or
TITLE OF INVENTION: Feline Interferon-gama And Uses Thereof
FILE REFERENCE: 54957-B
SOFTWARE: 1
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tes 8; Conserv
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Pred. No. 0.22;
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Pred. No.
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                                                                                                                                   ; TYPE: PRT ; ORGANISM: Mus musculus US-08-864-785-3
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Matches
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CURRENT FILING DATE: 1997-05-29
NUMBER OF SEQ ID NOS: 3
SOTTWARE: FASTSEQ for Windows Version 3.0
SEQ ID NO 3
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SEQ ID NO 28317
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APPLICANT: MARC J. Rubenfield et al.
APPLICANT: MOCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: ABRUCINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 3, Application US/08864785A Patent No. 6329566
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Best Local (
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Best Local .
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APPLICANT: Oppenheimer, Allison J.
APPLICANT: Hart, Anne C.
TITLE OF INVENTION: METHODS FOR THE DETECTION, TREATMENTITLE OF INVENTION: METHODS FOR THE DETECTION, TREATMENTITLE OF INVENTION. AND PREVENTION OF NEURODEGENERATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/252,991A CURRENT FILING DATE: 1999-02-18 PRIOR APPLICATION NUMBER: US 60/074,788 PRIOR FILING DATE: 1998-02-18
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                                                                                                                                                                                    LENGTH: 1305
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les 6; Conserv
1249 GVVPQHQLS 1257
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Pred. No. 0.97;
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Pred. No.
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Pred. No. 1.
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US-08-894-173-2
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Best Local S
Matches 6
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APPLICANT: Medical Research Council
TITLE OF INVENTION: Adenylate cyclase and uses therefor
FILE REFERENCE: P24360-
CURRENT FILING DATE: 199-09-17
CURRENT FILING DATE: 199-09-17
NUMBER OF SEQ ID NOS: 104
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 2
LENGTH: 1353
                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                       Sequence 3, Application US/09473717 Patent No. 6372475
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SEQ ID NO 2
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GENERAL INFORMATION:
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             APPLICANT: Storm, Daniel R.
APPLICANT: Hacker, Beth
APPLICANT: Tomlinson, James E.
APPLICANT: COR Therapeutics, Inc.
APPLICANT: COR Therapeutics, Inc.
APPLICANT: University of Washington
TITLE OF INVENTION: CLOUING AND CHARACTERIZATION OF A HUMAN ADENYLYL
TITLE OF INVENTION: CYCLASE
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CURRENT FILING DATE: 1997-08-13
NUMBER OF SEQ ID NOS: 97
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44481-5029-01-US
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Pred. No.
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Pred. No. 1.5e+02;
2; Mismatches 1
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CURRENT APPLICATION NUMBER: US/09/538,092
CURRENT FILING DATE: 2000-03-29
PRIOR APPLICATION NUMBER: 60/127,352
PRIOR FILING DATE: 1999-04-01
PRIOR APPLICATION NUMBER: 60/178,965
PRIOR FILING DATE: 2000-02-01
PRIOR FILING DATE: 2000-02-01
NUMBER OF SEQ ID NOS: 1387
SOFTWARE: CURAPATSEQFORMATHER Version 0.9
SEQ ID NO 1329
LENGTH: 1884
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US-09-270-767-44136
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; TYPE: PRT
; ORGANISM: murine type IX adenylyl cyclase
US-09-473-717-3
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Sequence 44136, Application US/09270767
Patent No. 6703491
GENERAL INFORMATION:
APPLICANT: Homburger et al.
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster
FILE REFERENCE: File Reference: 7326-094
CURRENT APPLICATION NUMBER: US/09/270,767
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
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SEQ ID NO 3
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Matches 6; Conserv
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PRIOR FILING DATE: 1998-07-01
PRIOR APPLICATION NUMBER: 60/098,559
PRIOR FILING DATE: 1997-07-01
PRIOR APPLICATION NUMBER: 08/886,440
PRIOR FILING DATE: 1997-07-01
NUMBER: OF SEQ ID NOS: 3
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CURRENT FILING DATE: 1999-12-29
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LOCATION: (0)...(0)
OTHER INFORMATION: Polypeptide Accession Number Q14690
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ORGANISM: Homo sapiens
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Similarity 66.7%;
6; Conservative
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                                                                                                                                                                                                                                                                                                                                                           Score 34; DB 4; Length 1884; Pred. No. 2.2e+02; Mismatches 1; Indels
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Pred. No. 1.5e+02;
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; TYPE: PRT ; ORGANISM: Drosophila melanogaster US-09-270-767-44136
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                           Query Match
Best Local Similarity
Thes 5; Conserve
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US-09-252-991A-31314
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; ORGANISM: Staphylococcus epidermidis
US-09-134-001C-3290
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US-09-134-001C-3290
                                                                                                                                                             US-09-252-991A-31314
                                                                                                                                                                                                                            APPLICANT: Marc J. Rubenfield et al.

APPLICANT: Marc J. Rubenfield et al.

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS

TITLE REFERENCE: 107195.136

CURRENT APPLICATION NUMBER: US/09/252,991A

CURRENT FILING DATE: 1999-02-18

PRIOR APPLICATION NUMBER: US 60/074,788

PRIOR APPLICATION NUMBER: US 60/074,788

PRIOR APPLICATION NUMBER: US 60/094,190

PRIOR APPLICATION NUMBER: US 60/094,190

PRIOR APPLICATION NUMBER: US 60/094,190

PRIOR TILING DATE: 1998-07-27

NUMBER OF SEQ ID NOS: 33142

SEQ ID NO 31314

LENGTH: 496
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APPLICANT: LYMIN DOUGETTE-STAMM et al
TITLE OF INVENTION: HUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS
TITLE OF INVENTION: EDIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: GTC-007
CURRENT FILING DATE: 1998-08-13
PRIOR APPLICATION NUMBER: US 60/064,964
PRIOR APPLICATION NUMBER: US 60/064,964
PRIOR APPLICATION NUMBER: US 60/055,779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 31314, Application US/09252991A Patent No. 6551795
GENERAL INFORMATION:
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Best Local Similarity 75.0
Matches 6; Conservative
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LENGTH: 249
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Best Local Similarity
Matches 5; Conserv
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GENERAL INFORMATION:
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                                                                                                                                                                                                                 TYPE: PRT
                                                                                                                                                                                   ORGANISM: Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          159 VPVHQLS 165
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                                                       Conservative
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                                                    3; Mismatches
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Pred. No. 39;
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Pred. No. 35;
                                                                             Score 33; DB 4;
Pred. No. 78;
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CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
FRIOR APPLICATION NUMBER: US 60/074,788
FRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NO 28266
LENGTH: 525
                                                                                                                                                                                                                                LENGTH: 91
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-621-976-7293
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US-09-252-991A-28266
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Search completed: December 15, 2004, 16:38:41 Job time : 16.4286 secs
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US-09-621-976-7293
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CURRENT FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 19335
SOFTWARE: PATENT.pm
SEQ ID NO 7293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
APPLICANT: MARC J. Rubenfield et al.
APPLICANT: MARC J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 7293, Application US/09621976
Patent No. 6639063
GENERAL INFORMATION:
APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Jobert, S.
APPLICANT: Giordano, J.Y.
TITLE OF INVENTION: ESTs and Encoded Human Proteins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 28266, Application US/09252991A
Patent No. 6551795
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Best Local :
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Best Local Similarity
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55.6%;
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Pred. No. 83;
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Maximum Match 100%
Listing first 45 summaries
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                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                    Published Applications AA:*

1: /cgn2 6/ptodata/2/pubpaa/US07 PUBCOMB.pep:*

2: /cgn2 6/ptodata/2/pubpaa/US06 NEW PUB.pep:*

3: /cgn2 6/ptodata/2/pubpaa/US06 NEW PUB.pep:*

4: /cgn2 6/ptodata/2/pubpaa/US07 NEW PUB.pep:*

5: /cgn2 6/ptodata/2/pubpaa/US07 NEW PUB.pep:*

6: /cgn2 6/ptodata/2/pubpaa/US07 NEW PUB.pep:*

6: /cgn2 6/ptodata/2/pubpaa/US08 NEW PUB.pep:*

7: /cgn2 6/ptodata/2/pubpaa/US08 PUBCOMB.pep:*

9: /cgn2 6/ptodata/2/pubpaa/US08 PUBCOMB.pep:*

10: /cgn2 6/ptodata/2/pubpaa/US09 PUBCOMB.pep:*

11: /cgn2 6/ptodata/2/pubpaa/US09 PUBCOMB.pep:*

12: /cgn2 6/ptodata/2/pubpaa/US09 PUBCOMB.pep:*

13: /cgn2 6/ptodata/2/pubpaa/US09 PUBCOMB.pep:*

14: /cgn2 6/ptodata/2/pubpaa/US09 PUBCOMB.pep:*

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16: /cgn2 6/ptodata/2/pubpaa/US10 NEW PUB.pep:*

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Gapop 10.0 , Gapext 0.5
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1 GLVPIHQMS 9
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Copyright (c) 1993 - 2004 Compugen Ltd.
SUMMARIES
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Result No.	Score	Query Match	Query Match Length DB	BC	ID	Description
1	44	93.6	329	و	US-09-303-510-6	Sequence 6, Appli
N	44	93.6	329	9	US-09-303-040-6	equence 6,
ω	44	93.6	332	16	US-10-790-396-26	e 26
4	41	87.2	280	16	US-10-790-396-17	Sequence 17, Appl
ហ	41	87.2	329	16	US-10-790-396-7	Sequence 7, Appli
თ		78.7	96	17	US-10-425-115-208294	Sequence 208294,
7		78.7	99	15	US-10-389-647-604	
œ		76.6	122	17	US-10-425-115-321220	
9		76.6	261	15	US-10-282-122A-60956	Sequence 60956, A
10		74.5	317	17	US-10-739-930-7964	
11		72.3	38	φ	US-09-864-761-42375	Sequence 42375, A
12	34	72.3	89	17	US-10-425-115-212035	Sequence 212035,
13		72.3	238	10	US-09-935-338-233	Sequence 233, App

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-10-437-963-12	-10-199-937-139	-10-282-122A-7697	-10-282-122A-5	-10-403-571-54	-10-156-761-980	-10-425-114-4183	-10-282-122A-7579	-10-282-122A-558	-10-282-122A-7336	-10-369-493-582	-10-369-493-1699	-10-425-114-5981	-10-425-114-6766	-10-282-122A-7116	ß	-10-369-493-1213	S-10-437-963-1603	S-10-425-115-28843	S-10-767-701-4986	S-10-144-194A-88	S-10-408-765A-2	S-10-144-194A-11	S-10-334-143-2	S-10-071-22 <b>3</b> -	-09-751-100B	S-10-014-079A-	S-10-156-761-1281	S-10-437-963-15662	S-10-437-963-1	S-10-282-122A-5152	1000
equence 125761	equence 139,	equence 76979	equence 53309,	equence 54,	equence 9809, A	equence 41830,	equence 757	equence 55853,	equence 73368,	equence 582, Ap	equence 16991,	equence 5981	equence 67660,	equence 71160,	Sequence 344824,	equence 12	equence 16	equence 28	equence 49	nce 88,	equence 28	equence 11	equence 21	equence 3,	quence 2,	equence 3,	e 12	equence 15	equence 14	equence 51	000000000000000000000000000000000000000

## ALIGNMENTS

RESULT 1 US-09-303-510-6

Sequence 6, Application US/09303510A
Patent No. US30020028208A1
GENERAL INFORMATION:
APPLICANT: Collisson, Ellen W.
APPLICANT: Hash, Stephen M.
APPLICANT: Choi, InSoo
APPLICANT: Choi, InSoo
TITLE OF INVENTION: Feline CD80, Feline CD86, Feline CD28, and Feline
TITLE OF INVENTION: CTLA-4 Nucleic Acid and Polypeptides

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RESULT 2
US-09-303-040-6
; Sequence 6, Application US/09303040
; Patent No. US20020051792A1
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                                                                          В
                                                                                                                                                                           US-09-303-510-6
                                                                                                                        Query Match 93.6%;
Best Local Similarity 88.9%;
Matches 8; Conservative
                                                                                                                                                                                       TYPE: PRT
ORGANISM: Feline
                                                                          120 GLVPMHOMS 128
                                                                                                1 GLVPIHOMS 9
                                                                                                                          ; Score 44; DB;
; Pred. No. 3;
1; Mismatches
                                                                                                                                                   9
                                                                                                                           0,
                                                                                                                                                 Length 329;
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                                                                                                                           Gaps
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FILE REFERENCE: 54954

CURRENT APPLICATION NUMBER: US/09/303,510A

CURRENT FILING DATE: 1999-04-30

EARLIER APPLICATION NUMBER: 60/083,869

EARLIER FILING DATE: 1998-05-01

NUMBER OF SEQ ID NOS: 83

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 6

LENGTH: 329

LENGTH: 329

GENERAL INFORMATION:

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US-10-790-396-17
Sequence 17. Application US/10790396
Publication No. US20040157296A1
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                           RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
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; CRGANISM: feline CD86
US-09-303-040-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT FILING DATE: 2004-03-01
PRIOR APPLICATION NUMBER: US/09/646,561
PRIOR FILING DATE: 2000-09-19
PRIOR APPLICATION NUMBER: 60/078,765
PRIOR FILING DATE: 1998-03-19
PRIOR APPLICATION NUMBER: 09/062,597
PRIOR FILING DATE: 1998-04-17
NUMBER OF SEQ ID NOS: 65
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Best Local S
Matches 8
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CURRENT FILING DATE: 1999-04-30
EARLIER APPLICATION NUMBER: 60/083,870
EARLIER FILING DATE: 1998-05-01
NUMBER OF SEQ ID NOS: 82
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 6
LENGTH: 329
TYPET TO THE TABLE OF THE TABL
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APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Yang, Shumin
APPLICANT: Sellins, Karen S.
TITLE OF INVENTION: NOVEL FORMS OF T CELL COSTIMULATORY
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IN-1-C1-PCT
CURRENT APPLICATION NUMBER: US/10/790,396
CURRENT FILING DATE: 2004-03-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn Ver.
SEQ ID NO 26
LENGTH: 332
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Sequence 26, Application US/10790396
Publication No. US20040157296A1
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APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Sellins, Karen S.
TITLE OF INVENTION: NOVEL FORMS OF T CELL COSTIMULATORY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: Recombinant Virus Expressing Foreign DNA Encoding TITLE OF INVENTION: Feline CD80, Feline CD86, Feline CD28, Feline CTLA-4 or TITLE OF INVENTION: Feline Interferon-gama And Uses Thereof FILE REFERENCE: 54957-B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PPLICANT: Winslow, PPLICANT: Cochran,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120 GLVPMHQMS 128
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8; Conser
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8; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Barbara J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93.6%;
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Pred. No.
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Pred. No.
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    PROTEINS, NUCLEIC
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FITTLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-1-C1-PCT
CURRENT APPLICATION NUMBER: US/10/790,396
CURRENT FILING DATE: 2004-03-01
PRIOR APPLICATION NUMBER: US/09/646,561
PRIOR FILING DATE: 2000-09-19
PRIOR APPLICATION NUMBER: 60/078,765
PRIOR FILING DATE: 1998-03-19
PRIOR APPLICATION NUMBER: 09/062,597
PRIOR APPLICATION NUMBER: 09/062,597
PRIOR FILING DATE: 1998-04-17
NUMBER OF SEQ ID NOS: 65
SOPTWARE: Patentin Ver. 2.0
1 SOPTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Sin. Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Yang, Shumin
APPLICANT: Yang, Shumin
APPLICANT: Sellins, Karen S.
TITLE OF INVENTION: NOVEL FORMS OF T CELL COSTIMULATORY
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-1-C1-PCT
CURRENT APPLICATION NUMBER: US/10/790,396
CURRENT FILING DATE: 2004-03-01
PRIOR APPLICATION NUMBER: US/09/646,561
PRIOR FILING DATE: 2000-09-19
PRIOR APPLICATION NUMBER: 05/078,765
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                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
7; Conserve
                                                                                                                                                                          RESULT 6
US-10-425-115-208294
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US-10-790-396-7
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; TYPE; PRT
; ORGANISM: Canis familiaris
US-10-790-396-17
                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-790-396-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
Matches 7
                                                                                                      Sequence 208294, Application US/10425115 Publication No. US20040214272A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE:
SEQ ID NO 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 7, Application US/10790396
Publication No. US20040157296A1
GENERAL INFORMATION:
                                                               APPLICANT: La Rosa, Thomas
APPLICANT: Kovalic, David
                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQ ID NOS: 65
SOFTWARE: PatentIn Ver. 2.0
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 329
TYPE: PRT
ORGANISM: Canis familiaris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity nes 7; Conserv
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                       Kovalic, David
Zhou, Yihua
Cao, Yongwei
                                                                                                                                                                                                                                                                                                                                                         Conservative
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77.8%;
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77.8%;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                              Score 41; DB
Pred. No. 12;
                                                                                                                                                                                                                                                                                                                                                       Mismatches
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9.8;
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CURRENT APPLICATION NUMBER: US/10/389,647
CURRENT FILING DATE: 2003-03-14
PRIOR APPLICATION NUMBER: 09/63730
PRIOR FILING DATE: 2000-09-01
PRIOR APPLICATION NUMBER: 60/153022
PRIOR APPLICATION NUMBER: 60/153022
PRIOR FILING DATE: 1999-09-03
INMBER OF SEQ ID NOS: 710
SOFTWARE: FRASUSEQ for Windows Version 4.0
SEQ ID NO 604
LENGTH: 99
                                                             GENERAL INFORMATION:
APPLICANT: La Rosa, Thomas J.
APPLICANT: Kovalic, David K.
APPLICANT: Zhou, Yihua
APPLICANT: Zhou, Yihua
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules an
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21(53222)8
CURRENT APPLICATION UNMBER: US/10/425,115
CURRENT FILING DATE: 2003-04-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 6; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; OTHER INFORMATION: Clone ID: MRT4577_121557C.1.pep US-10-425-115-208294
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US-10-389-647-604
                                                                                                                                                                                                                                                                     US-10-425-115-321220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; ORGANISM: Pseudomonas aeruginosa 
US-10-389-647-604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/10/425,115
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 369326
SEQ ID NO 208294
LENGTH: 96
                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
                                                                                                                                                                                                                                   Sequence 321220, Application US/10425115 Publication No. US20040214272A1
                                                                                                                                                                                                                                                                                                                                                                                                          Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: GREENBERG, E. Peter
APPLICANT: SCHUSTER, Martin
APPLICANT: LOSTROH, Candi
TITLE OF INVENTION: QUORUM SENSING SIGNALING
FILE REFERENCE: UIZ-038CP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: Plants FILE REFERENCE: 38-21(53222)B
                                              NUMBER OF SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Zea mays
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
                         ID NO 32
                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                         57
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66.7%;
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85.7%;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                         Score 37; DB 15;
Pred. No. 20;
                                                                                                                                 and Other Molecules Associated With
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Best Local Similarity
"hehes 6; Conserva
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                                                                                                 US-10-282-122A-60956
                              Query Match
Best Local Similarity
Matches 6; Conserv
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GLVPIHQMS
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) OTHER INFORMATION: Clone ID: MRT4577_56018C.1.pep US-10-425-115-321220
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PRIOR FILING DATE: 2000-05-23
PRIOR PELLING DATE: 2000-05-26
PRIOR FILING DATE: 2000-05-26
PRIOR PELLING DATE: 2000-05-26
PRIOR APPLICATION NUMBER: 60/230,335
PRIOR APPLICATION NUMBER: 60/230,347
PRIOR APPLICATION NUMBER: 60/230,347
PRIOR FILING DATE: 2000-09-09
PRIOR PILING DATE: 2000-10-23
PRIOR PELLING DATE: 2000-10-23
PRIOR APPLICATION NUMBER: 60/242,578
PRIOR APPLICATION NUMBER: 60/253,625
PRIOR FILING DATE: 2000-11-27
PRIOR PILING DATE: 2000-12-2
PRIOR PILING DATE: 2000-12-2
PRIOR PILING DATE: 2000-12-2
PRIOR FILING DATE: 2000-12-2
                                                                                                                                                                                                          Remaining Prior Application data removed - See File Wrapper or PALM. NUMBER OF SEQ ID NOS: 78614
SOFTWARE: PatentIn version 3.1
SEQ ID NO 60956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 60956, Application US/10282122A
Publication No. US20040029129A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILE REFERENCE: ELITRA.034A
CURRENT APPLICATION NUMBER: US/10/282,122A
CURRENT FILING DATE: 2003-02-20
PRIOR APPLICATION NUMBER: 60/191,078
PRIOR FILING DATE: 2000-03-21
                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: 60/267,636
PRIOR FILING DATE: 2001-02-09
PRIOR APPLICATION NUMBER: 60/269,308
PRIOR FILING DATE: 2001-02-16
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NAME/KEY: unsure
LOCATION: (1)..(122)
OTHER INFORMATION: unsure at all Xaa locations
                                                                                                                                ORGANISM: Listeria monocytogenes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INVENTION: Identification of Essential
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Yamamoto, Robert
Forsyth, R.
                   76.6%;
66.7%;
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; Score 36; DB;
; Pred. No. 85;
2; Mismatches
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Pred. No. 38;
2; Mismatches
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US-10-739-930-7964
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Matches
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CURRENT FILING DATE: 2003-12-18
NUMBER OF SEQ ID NOS: 11088
SEQ ID NO 7964
LENGTH: 317
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APPLICANT: KOVALIC, DAVID K.
APPLICANT: KOVALIC, DAVID K.
TITLE OF INVENTION: NUCLEIC ACID MOLECULES AND OTHER MOLECULES ASSOCIATED WITH
TITLE OF INVENTION: PLANTS AND USES THEREOF FOR PLANT IMPROVEMENT
FILE REFERENCE: 38-21(53377)B
FILE REFERENCE: 38-21(53377)B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 42375, Application Patent No. US20020048763A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 7964, Application US/10739930 Publication No. US20040216190A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -09-864-761-42375
                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: US 60/180,312
PRIOR FILING DATE: 2000-02-04
PRIOR APPLICATION NUMBER: US 60/207,456
PRIOR FILING DATE: 2000-05-26
PRIOR APPLICATION NUMBER: US 09/632,366
PRIOR FILING DATE: 2000-08-03
                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: PCT/US01/00666
                                                                                                                                                                                                                                                                                                                                         PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: GB 24263.6
PRIOR FILING DATE: 2000-10-04
PRIOR APPLICATION NUMBER: US 60/236,359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Rank, David R.
APPLICANT: Hanzel, David K.
APPLICANT: Chen, Wensheng
ITTLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
ITTLE OF INVENTION: GENE EXPRESSION ANALYSIS BY MICROARRAY
                                                                                                                                                                                                                                                                                                RIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ILE REFERENCE: Aeomica-X-1
URRENT APPLICATION NUMBER: US/09/864,761
URRENT FILING DATE: 2001-05-23
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                                                    APPLICATION NUMBER: PCT/US01/00668
                                                                                                                                                                                                                                                                        APPLICATION NUMBER: PCT/US01/00667
                                      APPLICATION NUMBER: PCT/US01/00663
                                                                   FILING DATE:
                                                                                                                                 APPLICATION NUMBER: PCT/US01/00665
                                                                                                                                                            FILING DATE:
                                                                                                                                                                               APPLICATION NUMBER: PCT/US01/00669
                                                                                                                                                                                                                        APPLICATION NUMBER: PCT/US01/00664
                     FILING DATE:
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5; Conser
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NUMBER: PCT/US01/00662
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Pred. No. 1.6e
3; Mismatches
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                                                                                                                                                      ; OTHER INFORMATION: Clone ID: MRT4577_124978C.1.pep
US-10-425-115-212035
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                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/10/425,115
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 369326
SEQ ID NO 212035
LENGTH: 89
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                                                                              Matches
                                                                                              Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: Nucleic Acid Molecules
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21(53222)B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: La Rosa, Thomas
APPLICANT: Kovalic, David
APPLICANT: Zhou, Yihua
APPLICANT: Cao, Yongwei
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NUMBER OF SEQ ID NOS: 49117
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 2.9
OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 3.3
OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 3.3
OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 4.4
OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 2.8
OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 4.3
OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 4.1
OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 2.1
OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 3.3
                                                                                                                                                                                                                                     NAME/KEY: unsure LOCATION: (1)..(
                                                                                                                                                                                                                LOCATION: (1)..(89)
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                            ORGANISM: Zea mays
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FEATURE:
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APPLICATION NUMBER: US 60/234,687
FILING DATE: 2000-09-21
APPLICATION NUMBER: US 09/608,408
APPLICATION NUMBER: US 09/608,408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION FILING DATE.
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23 GLVPFHQ 29
                                                                          l Similarity
6; Conserv
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                                       1 GLVPIHQ 7
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CATION NUMBER: PCT/US01/00670
                                                                            Conservative
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EXPRESSED IN PLACEXPRESSED IN BRAIL
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85.7%;
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Pred. No.
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Pred. No.
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27;
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67;
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RESULT 13 US-09-935-338-233

Sequence 233, A Publication No.

Application US/09935338

GENERAL INFORMATION

SAGAWA, Hiroaki UEMORI, Takashi

Hiroyuki

YAMAMOTO,

KOBAYASHI, Eiji ENOKI, Tatsuji

O, Junko Jun

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RESULT 14
US-10-380-430-59
; Sequence 59, Ap
; Publication No.
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Best Local Similarity
Matches 5; Conserve
                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; TYPE: PRT ; ORGANISM: Thermotoga maritime US-09-935-338-233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn version 3.2
SEQ ID NO 233
LENGTH: 238
                                                                                                                                                                                                                                   GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: JP11-370035
PRIOR FILING DATE: 1999-12-27
PRIOR APPLICATION NUMBER: JP2000-251981
PRIOR FILING DATE: 2000-08-23
PRIOR APPLICATION NUMBER: JP2000-284419
                                                                                                                                                  APPLICANT: UEMORI, Takash
APPLICANT: SATO, Yoshimi
APPLICANT: KOYAMA, No. U
APPLICANT: HIRANO, Ryo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: PCT/JP00/01534
PRIOR FILING DATE: 2000-03-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: JP2001-104191 PRIOR FILING DATE: 2001-04-03
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PRIOR FILING DATE: 1999-03-19
PRIOR APPLICATION NUMBER: JP11-370035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILE REFERENCE: MUKAI=1
CURRENT APPLICATION NUMBER: US/09/935,338
CURRENT FILING DATE: 2001-08-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR FILING DATE: 2000-09-19
PRIOR APPLICATION NUMBER: JP2000-288750
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                TITLE OF INVENTION: THERMOTOLERANT RIBONUCLEASE FILE REFERENCE: UEMORI=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR FILING DATE: 2000-09-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: A method for amplification of nucleic acids
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URRENT APPLICATION NUMBER: US/10/380,430
                                                                                                                                                                                                                                                                                                                                                                        176 GVLPIHRLS 184
                                                                                                                                                                                                                                   INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                         1 GLVPIHOMS 9
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                                                   KOBORI, Hiroshi
HASHIMOTO, Yuji
ASADA, Kiyozo
KATO, Ikunoshi
                                                                                                                                  KOYAMA, NO. US20040038366Aluto
HIRANO, Ryo
TAKAKURA, Hikaru
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SAWARAGI, Haruhisa
HAGIYA, Michio
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MIYAKE, Kazue
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ID NOS: 290
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55.6%;
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Pred. No. 1
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ORGANISM: Clostridium acetobutylicum -10-282-122A-51529

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                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: 60/207,727
PRIOR FILING DATE: 2000-05-26
PRIOR APPLICATION NUMBER: 60/230,335
PRIOR FILING DATE: 2000-09-06
PRIOR APPLICATION NUMBER: 60/230,347
PRIOR FILING DATE: 2000-09-09
PRIOR APPLICATION NUMBER: 60/230,347
PRIOR FILING DATE: 2000-10-23
PRIOR APPLICATION NUMBER: 60/253,625
PRIOR APPLICATION NUMBER: 60/253,625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                  SOFTWARE: PatentIn
SEQ ID NO 51529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 51529, Application US/10282122A Publication No. US20040029129A1
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Best Local
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PRIOR APPLICATION NUMBER: JP 2000-280785
PRIOR FILING DATE: 2000-09-14
PRIOR APPLICATION NUMBER: JP 2001-064074
PRIOR FILING DATE: 2001-03-07
PRIOR FILING DATE: 2001-09-13
                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/10/282,122A
CURRENT FILING DATE: 2003-02-20
PRIOR APPLICATION NUMBER: 60/191,078
PRIOR FILING DATE: 2000-03-21
PRIOR APPLICATION NUMBER: 60/206,848
PRIOR FILING DATE: 2000-05-23
PRIOR FILING DATE: 2000-05-23
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                                                       PRIOR APPLICATION NUMBER: 60/267,636
PRIOR FILING DATE: 2001-02-09
PRIOR APPLICATION NUMBER: 60/269,308
PRIOR FILING DATE: 2001-02-16
Remaining Prior Application data removed -
NUMBER OF SEQ ID NOS: 78614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn version 3.2
                                                                                                                                                                           PRIOR FILING DATE: 2000-11-27
PRIOR APPLICATION NUMBER: 60/257,931
PRIOR FILING DATE: 2000-12-22
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ENGTH:
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nes 5; Conserv
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Malone, Cheryl
Malonek, Robert
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Yamamoto, Robert
Forsyth, R.
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Query Match
Query Match
Best Local Similarity 66.7%; Pred. No. 2e+02;
Matches 6; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 1 GLVPIHQMS 9
Db 240 GTTPIHRMS 248

Search completed: December 15, 2004, 16:54:13
Job time: 89.4286 secs
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Result
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Maximum DB
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Perfect score:
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  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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D899226
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B83129
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AI3229
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B72320
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H85088
JC4279
F83710
AG1596
I51324
B69200
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C;Accession: 146691
Immunogenetics 42, 217-220, 1995
A;Title: Cloning and sequencing of the rabbit gene encoding A;Reference number: 146689; MUID:95369849; PMID:7642234
A;Accession: 146691
A;Accession: 146691
A;Accession: 1467692
A;Accession: 146691
A;Accession: 146
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 14-Feb-1997 #sequence_revision 14-Feb-1997
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## ALIGNMENTS

#text\_change 09-Jul-2004

T-cell costimulatory molecui

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C;Accession: B83119

R;Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warrener, P.; Hickey, M.J.; B adman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Polger, K.R.; Kas, A.; Larbig, K.; Lim Lory, S.; Olson, M.V.

Nature 406, 959-964, 2000

A;Title: Complete genome sequence of Pseudomonas aeruginosa PA01, an opportunistic path A;Reference number: A82950; MUID:20437337; PMID:10984043

A;Accession: B83129
                                                                                                                                                                                                                                                                                                                                                                      hypothetical protein PA4139 [imported] - Pseudomonas aeruginosa (strain PAO1) C;Species: Pseudomonas aeruginosa (C;Species: Pseudomonas aeruginosa (C;Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 09-Jul-2004
                                                                                                                 A;Cross-references: UNIPROT:Q9HWP2; GB:AE004830; GB:AE004091; NID:g9950337; PIDN:AAG075:
A;Experimental source: strain PAO1
                                                                                                                                                         A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-99 <STO>
                                                                             A;Gene:
                Query Match
Best Local
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Similarity 6; Conserv
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  Conservative
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77.8%;
                  78.7%;
66.7%;
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Pred. No. 5.4;
2; Mismatches
                    Score 37; I
Pred. No. 2
  Mismatches
                                       DB 2;
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GLVPIHQMS

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AI3229
D-nopaline dehydrogenase noxA [imported] - Agrobacterium tumefaciens (strain C.Species: Agrobacterium tumefaciens C.Species: Agrobacterium tumefaciens C.Date: 11-Jan-2002 #sequence_revision 11-Jan-2002 #text_change 09-Jul-2004 C.Accession: AI3229
R.Wood, D.W., Setubal, J.C.; Kaul, R.; Monks, D.; Chen, L.; Wood, G.E.; Chen, erage, G.; Gillet, W.; Grant, C.; Guenthner, D.; Kutyavin, T.; Levy, R.; Li, Karp, P.; Romero, P.; Zhang, S.
Science 294, 2317-2323, 2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Molecule type: DNA
A; Residues: 1-261 <GLA>
A; Cross-references: UNIPROT: Q8Y7K4; GB: NC_003210;
A; Experimental source: strain EGD-e
C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   D-nopaline dehydrogenase (EC 1.5.1.19) NoxA - Agre (Species: Agrobacterium tumefaciens C;Date: Ol-Aug-1995 #sequence_revision Ol-Sep-1995 (;Accession: S55579 R;Zanker, H.; Lurz, G.; Langridge, U.; Langridge, submitted to the EMBL Data Library, February 1994 A;Description: Octopine and nopaline oxidases from A;Reference number: S55578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           D., Jones, L.M.; Karst, U.
Science 294, 849-852, 2001
A;Authors: Kreft, J.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Madueno, ok, C.; Schlueter, T.; Simoes, N.; Tierrez, A.; Vazquez-Boland, J., A;Title: Comparative genomics of Listeria species.
A;Reference number: AB1077; MUID:21537279; PMID:11679669
A;Accession: AI1233
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C;Date: 2
C;Accessic
R;Glaser,
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A;Residues: 1-434 <ZAN>
A;Cross-references: UNIPROT:Q59158; EMBL:Z30316; NID:g496533; PIDN:CAA82963.1;
C;Keywords: oxidoreductase
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Best Local S
Matches 6
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;Date: 27-Nov-2001 #sequence_revision 27-Nov-
;Accession: A11233
;Glaser, P.; Frangeul, L.; Buchrieser, C.; An
; Dominguez-Bernal, C.; Duchaud, E.; Durand,
                                                                                                                                                                                                                                                                                                                        Matches
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Best Local (
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#sequence_revision 27-Nov-2001 #text_change 09-Jul-2004
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Pred. No.
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Dussurget, O.;
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                                                         bd, G.E.; Chen,
Levy, R.; Li,
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tian, K.D.;
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Voss, H.; W
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Fsihi, H.
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Wehland,
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RESULT 7
B72320
                                                                                Nature 399, 323-329, 1999
A;Title: Evidence for lateral
A;Reference number: A7,2200; M
A;Accession: B72320
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R;Nelson, K.E.; Clayton,
Garrett, M.M.; Stewart,
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A;Residues: 1-1499 <KUR>
A;Residues: 1-1499 <KUR>
A;Cross-references: UNIPROT:Q8YK83; GB:AP003603;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nakazaki, N.; Shimpo, S.;
DNA Res. 8, 205-213, 2001
A; Title: Complete Genomic
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hypothetical protein alr8034 [imported] - Nostoc sp. (strain PC; Species: Nostoc sp. PCC 7120
c;Species: Nostoc sp. PCC 7120 is a synonym of Anabaena sp. A;Note: Nostoc sp. strain PCC 7120 is a synonym of Anabaena sp. C;Date: 14-Dec-2001 #sequence_revision 14-Dec-2001 #text_change C;Accession: AC2555
R;Kaneko, T.; Nakamura, Y.; Wolk, C.P.; Kuritz, T.; Sasamoto, Nakazaki, N.; Shimpo, S.; Sugimoto, M.; Takazawa, M.; Yamada,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type: DNA
A; Residues: 1-472 < KUR>
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               A; Cross-references:
                                 A; Molecule type: DNA
A; Residues: 1-238 < ARN>
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A; Experimental source: strain C58 (
                                                                A;Status: preliminary
                                                                                                                                                                                                                                                   ribonuclease
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Matches
;Cross-references: UNIPROT:Q9X017;
;Experimental source: strain MSB8
                                                                                                                                                                                                            ibonuclease HII - Thermotoga maritima (strain MSB8)
;Species: Thermotoga maritima
;Species: 11-Jun-1999 #sequence_revision 11-Jun-1999 #text_change 09-Jul-2004
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Best Local (
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les 5; Conserv
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66.7%;
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                                                                                                 al gene transfer between Archaea
MUID:99287316; PMID:10360571
                                                                                                                                                                  Cotton,
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                 GB:AE001755; GB:AE000512; NID:g4981432; PIDN:AAD359
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#text_change
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                                                                                                                   and Bacteria
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ps, C.A.; Richardson,
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09-Jul-2004
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Tabata,
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ribonuclease HII [imported] - Clostridium acetobutylicum
C;Species: Clostridium acetobutylicum
C;Species: Clostridium acetobutylicum
C;Species: Clostridium acetobutylicum
C;Date: 14-Sep-2001 #sequence_revision 14-Sep-2001 #text_change 09-Jul-2004
C;Accession: E97117
R;Nolling, J.; Breton, G.; Omelchenko, M.V.; Markarova, K.S.; Zeng, Q.; Gibs
C; Daly, M.J.; Bennett, G.N.; Koonin, E.V.; Smith, D.R.
J. Bacteriol. 183, 4823-4838, 2001
A;Title: Genome Sequence and Comparative Analysis of the Solvent-Producing I
A;Reference number: A96900; MUID:21359325; PMID:21359325
A;Accession: E97117
A;Accession: E97117
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R;Parkhill, J.; Wren, B.W.; Mungall, K.; Ketley, J.M.; Churcher, C.; Basham, D.; Chillin C.W.; Quail, M.; Rajandream, M.A.; Rutherford, K.M.; VanVliet, A.; Whitehead, S.; Barrel Nature 403, 665-668, 2000
A;Title: The genome sequence of the food-borne pathogen Campylobacter jejuni reveals hyph;Reference number: A81250; MUID:20150912; PMID:10688204
A;Accession: A81446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        acyl-[acyl-carrier-protein]-UDP-N-acetylglucosamine O-acyltransferase (EC 2.3.1.129)
C;Species: Campylobacter jejuni
C;Date: 31-Mar-2000 #sequence_revision 31-Mar-2000 #text_change 09-Jul-2004
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C;Superfamily: ribonuclease HII
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Best Local Similarity
Matches 5; Conserv
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Best Local &
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Residues: 1-254 <KUR>
                                                                                                                                   Query Match
Best Local (
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                                     GLTPIHO 158
                                                                         GLVPIHQ 7
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                                                                                                                                   Score 34; DB 2;
Pred. No. 27;
                                                                                                                                                                                                                                                                            GB:AL139074; GB:AL111168; strain NCTC 11168
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RESULT 12
F83710
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RESULT

10

hypothetical

protein

BH0486

[imported]

Bacillus halodurans

(strain

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hypothetical protein AT4g08830 [imported] - Arabidopsis thaliana
C;Species: Arabidopsis:thaliana (mouse-ear cress)
C;Date: 16-Feb-2001 #sequence_revision 16-Feb-2001 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Biochem. Biophys. Res. Commun. 214, 1000-1008, 1995
A;Title: Control of a novel adenylyl cyclase by calcineurin.
A;Reference number: JC4279; MUID:96024597; PMID:7575502
A;Accession: JC4279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Title: Sequence and analysis of chromosome 4 of the plant Arabidopsis thaliana A;Reference number: A85001; MUID:20083488; PMID:10617198
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R;anonymous, The European Union Arabidopsis Genome Sequencing Consortium, The Cold Sprin
Nature 402, 769-777, 1999
                                                                                                                                                                                               F;921-941/Domain: tr
F;977-997/Domain: tr
F;1011-1246/Domain:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Molecule type: mRNA
A;Residues: 1-1353 <PAT>
A;Cross-references: UNIPROT:P51830; EMBL:Z50190
A;Experimental source: AtT20 cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R; Paterson, J.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          adenylate cyclase (EC 4.6.1.1) type 10 - mouse
C;Species: Mus musculus (house mouse)
C;Date: 29-Nov-1995 #sequence_revision 08-Feb-1996 #text_change 09-Jul-2004
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A;Molecule type: DNA
A;Residues: 1-947 <STO>
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in: transmembrane #status predicted <TM04>
in: transmembrane #status predicted <TM06>
in: transmembrane #status predicted <TM06>
in: guanylate cyclase catalytic domain homology <G
in: guanylate cyclase catalytic domain homology <G
in: transmembrane #status predicted <TM07>
in: transmembrane #status predicted <TM08>
in: transmembrane #status predicted <TM09>
in: transmembrane #status predicted <TM09>
in: transmembrane #status predicted <TM09>
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transmembrane #status predicted <TM02>
transmembrane #status predicted <TM02>
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#status predicted <TM12>
yclase catalytic domain homology
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Pred. No. 1.7e+02;
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Pred. No. 1.1e+02;
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ribonuclease H rnh homolog rnhB [imported] - Listeria innocua (strain Clip11262)
C;Species: Listeria innocua
C;Species: Listeria innocua
C;Bate: 27-Nov-2001 #sequence_revision 27-Nov-2001 #text_change 09-Jul-2004
C;Accession: AG1596
R;Glaser, P.; Frangeul, L.; Buchrieser, C.; Amend, A.; Baquero, F.; Berche, P.; Bloecker
; Dominguez-Bernal, G.; Duchaud, E.; Durand, L.; Dussurget, O.; Entian, K.D.; Fsihi, H.
D; Jones, L.M.; Karst, U.
Science 294, 849-852, 2001
A;Authors: Kreft, J.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Madueno, E.; Maitournam, A.; Ma
ok, C.; Schlueter, T.; Simoes, N.; Tierrez, A.; Varquez-Boland, J.A.; Voss, H.; Wehland,
A;Reference number: AB1077; MUID:21537279; PMID:11679669
A,Accession. AG1596
R:Kitagawa, K.; Sinoway, M.P.; Yang, C.; Gould, R.M.; Colman, D.R. Neuron 11, 43-448, 1993
A;Title: A proteolipid protein gene family: expression in sharks a A;Reference number: I51323; MUID:94000810; PMID:8398138
A;Accession: I51324
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-278 <XIT>
                                                                                                                                                                                                  proteolipid protein DM beta - spiny dogfish
C;Species: Squalus acanthias (spiny dogfish)
C;Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 09-Jul-2004
C;Accession: I51324
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C;Date: 01-Dec-2000 #sequence_revision 01-Dec-2000 #text_change 09-Jul-2004
C;Accession: F83710
R;Takami, H; Nakasone, K; Takaki, Y; Maeno, G; Sasaki, R; Masui, N; Fuji, F; Hira Nucleic Acids Res. 28, 4317-4331, 2000
A;Title: Complete genome sequence of the alkaliphilic bacterium Bacillus halodurans and A;Reference number: A83650; MUID:20512582; PMID:11058132
A;Accession: F83710
A;Status: preliminary
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A;Cross-references: UNIPROT:092C79; GB:AL592022; PIDN:CAC96543.1; PID:g16413785; GSPDB:A;Experimental source: strain Clip11262
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A;Experimental source: strain C-125
C;Genetics:
A;Gene: BH0486
C;Superfamily: Bacillus subtilis hypothetical protein yteS
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A; Residues: 1-159 <STO>
A; Cross-references: UNI
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Pred. No. 43;
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Search completed: December 15, 2004, 16:38:00 Job time : 13.7143 secs

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69 GMMPLHQVT

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1 GLVÞIHQMS 9

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A; Experimental C; Genetical
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A;Title: Complete genome sequence of Methanobacterium thermoautotrophicum Delta H: fu. A;Reference number: A69000; MUID:98037514; PMID:9371463
                                                                                                                                                  A;Status: preliminary; nucleic acid sequence not shown; translation A;Molecule type: DNA A;Residues: 1-405 <MTH>
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                                                                            A;Gene:
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Query Match
Best Local S
Matches 4
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                                                                                                              Cross-references: UNIPROT:026844; Experimental source: strain Delta
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181 GIVPIHE 187
l Similarity
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  Score 33; DB
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                  DB
70;
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O9dgg6 gallus gall
O8yk83 anabaena sp
O7nn18 gloeobacter
O9x017 thermotoga
O48725 lactococcus
O8dsh5 streptcoccc
O97190 clostridium
O9pim1 campylobact
194301 bacillus fi
O82cr7 streptomyce
O6m5c1 corynebact
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re greater than or equal to the score is derived by analysis of the total
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Q7quw1 giardia lam
Q8rfu2 fusobacteri
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Q7md30 vibrio vuln
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InterPro; IPR003596; Ig_v.
Pfam; PF00047; Ig; 1.
SMART; SM00406; IG; 1.
PR0SITE; PSS0835; IG LIKE; 1.
SEQUENCE 325 AA; 36527 MW;
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Q9XSX6;
01-NOV-1999 (TrEMBLrel. 1
01-NOV-1999 (TrEMBLrel. 1
01-OCT-2003 (TrEMBLrel. 2
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O1-JUL-1997
O1-JUL-1997
O1-OCT-2003
B7-2;
   CD86 antigen.
Name=CD86;
Felis silvestris catus (Cat).
Eukaryota; Metazoa; Chordata; Craniata;
Mammalia; Butheria; Carnivora; Fissipedi
NCBI TaxID=9885;
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J. Immunol. 157:3838-3844(1996).
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Mammalia; Eutheria;
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HSSP; P42081; 1NCN.
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nn K., Min W., Hughes
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December 15,

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X Nishimura Y., Shimojima M., Miyazawa T., Sato E., Nakamura K.,

A Izumiya Y., Ikeda Y., Mikami T., Takahashi E.;

I "Molecular cloning of the cDNA encoding the feline B-lymphocyte

T activation antigen B7-1 (CD80) and B7-2 (CD86) homologues which

I interact with human CTLA4-1g.";

Leur. J. Immunogenet. 27:427-430(2000).

R EMBL; AB030652; BAB11688.1; -.

R HSSP, P42081; INCN.

R InterPro; IPR007110; Ig-like.

R InterPro; IPR003596; Ig v.

R SMART; SM00406; IGV; 1.

R PROSSITE; P850835; IG LIKE; 1.

Q SEQUENCE 332 AA; 37812 MW; 672C8B3667D1E3C0 CRC64;
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HSSP; P42081; 1NCN.
InterPro; IPR007110; Ig-like.
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O1-MAR-2001 (TrEMBLrel. 1
O1-MAR-2001 (TrEMBLrel. 1
O1-OCT-2003 (TrEMBLrel. 2
B-lymphocyte activation a
  Q95L16;
Q95L16;
01-DEC-2001
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CD86.
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MEDLINE=20180222; PubMed=10713336;
Choi I.S., Hash S.M., Winslow B.J., Collisson E.W.;
"Sequence analyses of feline B7 costimulatory molecuter. Immunol. Immunopathol. 73:219-231(2000).
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Eukaryota; Metazoa; Chordata; (
Mammalia; Eutheria; Carnivora;
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Pred. No. 2.2;
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RESULT
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Best Local
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Yang S., Sellins K.S., Powell T., Stoneman E.,
"Novel transcripts encoding secreted forms of
costimulatory molecules.";
Vet. Immunol. Immunopathol. 81:15-21(2001).
EMBL; AY007704; AAG23342.1; -.
H&SP; P4208L; INCN.
InterPro; IPR007110; Ig-like.
InterPro; IPR007110; Ig-like.
InterPro; IPR003596; Ig-
SMART; SM00406; IGV:
PROSITE; P850835; IG LIKE; 1.
SEQUENCE 332 AA; 37826 MW; 8BFC8B3667D1E31
                                                                                                                                                                  InterPro; IPR007110; Ig-like.
InterPro; IPR003006; Ig_MHC.
InterPro; IPR003096; Ig_v.
INTERPRO; IRR003596; Ig_v.
SMART; SM00406; IGv; 1.
PROSITE; PS00835; IG_LIKE; 1.
PROSITE; PS00290; IG_MHC; UNKNOWN_1.
SEQUENCE 280 AA; 32265 MW; 3C8EF
                                                                                                                                                                                                                                                                                                                                                                                                            Q9TTF1;
01-MAY-2000 (TrEMBLrel. 1
01-MAY-2000 (TrEMBLrel. 1
01-MAR-2004 (TrEMBLrel. 2
Truncated B7-2 protein.
Q9TTF2;
Q9TTF2;
Q1-MAY-2000
                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
MEDITIME=20093996; PubMed=10630300;
Yang S., Sim G.-K.;
"New forms of dog CD80 and CD86 tr
molecules.";
                                                                                                                                                                                                                                                                                                                                                              Canis familiaris (Dog).
Eukaryota; Metazoa; Chordata; Craniata; Ver
Mammalia; Eutheria; Carnivora; Fissipedia;
                                                                                                                                                                                                                                                 Immunogenetics 50:349-353(1999).
EMBL; AF106827; AAF17298.1; -.
HSSP; P42081; INCN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Name-CD86;
Felis Silvestris catus (Cat).
Felis Silvestris catus (Cat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.
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                                                                                                                         Similarity 77.177; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
8; Conserv
                                                                               GLVPMHQMN
 (TrEMBLrel.
                       PRELIMINARY;
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77.8%;
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                                                                                                                                    Score 41;
Pred. No.
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Pred. No. 2.
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                                                                                                                                                                                                                                                                                                                                                                               Craniata; Vertebrata;
                                                                                                                                                                       3C8EBCA4D826A7F3 CRC64;
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7.5;
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CD80 and CD86
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Q9GL33
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Best Local
                                                                                                                                                                                                                                                SEQUENCE FROM N.A.

TISSUE=Peripheral blood;
Brooke G.P., Howard C.J., Parson
Submitted (CCT-2000) to the EMBL
EMBL; AJ291475; CAC13140.1; -..
InterPro; IPR007110; Ig-like.
InterPro; IPR0031596; Ig_v.
Pfam; PF00047; ig; 1.
SMART; SM00406; IGv; 1.
PROSITE; PS50835; IG LIKE; 1.
NON TER
284
SEQUENCE 284 AA; 32021 MW; 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR007110; Ig-like.
InterPro; IPR003006; Ig MGC.
InterPro; IPR003006; Ig_V.
SMART; SM00406; IGV; 1.
PR0SITE; PS00290; IG MHC; UNKNU SEQUENCE 329 AA; 37774 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HSSP; P42081; INCN.
InterPro; IPR007110; I
InterPro; IPR003006; I
InterPro; IPR003596; I
SMART; SM00406; IGv; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAR-2001 (TrEMBLrel. 16, 01-MAR-2001 (TrEMBLrel. 16, 01-CCT-2003 (TrEMBLrel. 25,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Canis familiaris (Do
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bos taurus (Bovine).
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Yang S., Sim G.-K.; new forms of dog CD80 and CD86 transcripts that encode secreted ^{\rm n}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bovinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CD86 antigen (Fragment)
Name=CD86;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q9GL33
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
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EMBL; AF106826; AAF17297.1; -.
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126
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8; Conserv
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GLVSIHOMS 134
                                                              GLVPIHQMS
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oa; Chordata;
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Cetartiodactyla;
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                                                                                                                                                         83.0%;
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Last annotation update)
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Pred. No. 19;
0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Craniata; Vertebrata; Euteleostomi;
actyla; Ruminantia; Pecora; Bovidae;
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Canis.
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RESULT 8 CD86\_RABIT

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Similarity 7; Conserv

Conservative

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Gaps

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Query Match
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Matches
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-i- FUNCTION: Receptor involved in the costimulatory signal essential for T lymphocyte proliferation and interleukin 2 production, by binding CD28 or CTLA-4. May play a critical role in the early binding CD28 or CTLA-4. May play a critical role in the early events of T cell activation and costimulation of naive T cells, such as deciding between immunity and anergy that is made by T cells within 24 hours after activation.

-i- SUMILARITY: Contains 1 immunoglobulin-like C2-type domain.

-i- SIMILARITY: Contains 1 immunoglobulin-like V-type domain.
                                                             DOMAIN
DISULFID
DISULFID
CARBOHYD
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TRANSMEM
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P42071;
01-NOV-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Oryctolagus cuniculus (Rabbit).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
                                                                                                                                                                                                                                                                                                                                                                                         EMBL; D49842; BAA086
PIR; I46691; I46691.
HSSP; P42081; INCN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Cloning and sequencing of costimulatory molecules.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        antigen)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B lymphocyte activation antigen CD86 precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-NOV-1995
05-JUL-2004
                                                    SEQUENCE
                                                                                                                                                                                                                                                                CHAIN
                                                                                                                                                                                                                                                                           SIGNAL
                                                                                                                                                                                                                                                                                                    Glycoprotein;
                                                                                                                                                                                                                                                                                                               PROSITE; PS50835; IG_LIKE; 1.
PROSITE; PS00290; IG_MHC; 1.
                                                                                                                                                                                                                                                                                                                                          SMART; SM00406; IGv; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=95369849;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9986;
                                                                                                                                                                                                                                                                                                                                                 InterPro; IPR007110; Ig-like
InterPro; IPR003006; Ig_MHC.
InterPro; IPR003596; Ig_v.
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133
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146
154
177
                                                                                                                                                                                                                                                                                                    Immunoglobulin
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                                                    37142
             80.9%;
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Last annotation update)
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                                                 N-linked (GlCNAc...
 Score 38; DB pred. No. 36; 2; Mismatches
                                                                                                                                                                                                                                                                                                    domain;
                                                                                                                                                                      Potential.
                                                                                                                                                                                   Potential.
                                                                                                                                                                                                                        Cytoplasmic (Potential).
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Extracellular
                                                                                                                                                                                               Ig-like C2-type.
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                                                                                                                                                                                                           ke V-type
                                                                                                                                                                                                                                                                                                  Receptor; Signal; T-cell;
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(Glenac...)
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(Potential).
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(Potential).
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RESULT 10
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ID Q9HWP
AC Q9HWP
AC Q9HWP
DT 01-MJ
DT 01-MJ
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DT 01-MJ
OC Bact
OC Pseu
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OC Pseu
OC Pseu
FR PSEQI
RN [1]
RP SEQI
RN [1]
RD STR
RX MED
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RX STR

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                                                    REQUENCE FROM N.A.

SEQUENCE FROM N.A.

CONTRAINANCE 15692 / PAO1;

XX MEDILINE=20437337; PubMed=10984043;

XX Stover C.K., Pham X.-Q.T., Erwin A.I., Mizoguchi S.D., Warrener P.,

XX A Stover C.K., Pham X.-Q.T., Erwin A.I., Mizoguchi S.D., Warrener P.,

XX A Stover C.K., Pham X.-Q.T., Erwin A.I., Mizoguchi S.D., Warrener P.,

XX A Stover C.K., Pham X.-Q.T., Erwin A.I., Mizoguchi S.D., Warrener P.,

XX A Garber R.L., Goltry L., Tolenthine E., Westbrock-Waddman S., Yuan Y.,

XX A Brody L.L., Coulter S.N., Folger K.R., Kas A., Larbig K., Lim R.M.,

XX A Brody L.L., Spencer D.H., Wong G.K.-S., Wu Z., Paulsen I.T.,

XX A Reizer J., Saier M.H., Hancock R.E.W., Lory S., Olsen M.V.;

XX A Reizer J., Saier M.H., Hancock R.E.W., Lory S., Olsen M.V.;

XX A Reizer J., Saier M.H., Hancock R.E.W., Lory S., Olsen M.V.;

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XX A Reizer J., Saier M.H., Hancock R.E.W., Lory S., Olsen M.V.;

XX A Reizer J., Saier M.H., Hancock R.E.W., Lory S., Olsen M.V.;

XX A Reizer J., Saier M.H., Hancock R.E.W., Lory S., Olsen M.V.;

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XX A Reizer J., Saier M.H., Hancock R.E.W., Lory S., Olsen M.V.;

XX A Reizer J., Saier M.H., Hancock R.E.W., Lory S., Olsen M.V.;

XX A Reizer J., Saier M.H., Hancock R.E.W., Lory S., Olsen M.V.;

XX A Reizer J., Saier M.H., Hancock R.E.W., Lory S., Olsen M.V.;

XX A Reizer J., Saier M.H., Hancock R.E.W., Lory S., Olsen M.V.;

XX A Reizer J., Saier M.H., Hancock R.E.W., Lory S., Olsen M.V.;

XX A Reizer J., Saier M.H., Hancock R.E.W., Lory S., Olsen M.V.;

XX A Reizer J., Saier M.H., Hancock R.E.W., Lory S., Olsen M.V.;

XX A Reizer J., Saier M.H., Hancock R.E.W., Lory S., Olsen M.V.;

XX A Reizer J., Saier M.H., Hancock R.E.W., Lory S., Olsen M.V.;

XX A Reizer J., Saier M.H., Hancock R.E.W., Lory S., Olsen M.V.;

XX A Reizer J., Saier M.H., Hancock R.E.W., Lory S., Olsen M.V.;

XX A Reizer J., Saier M.H., Hancock R.E.W
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Best Local S
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   Query Match
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01-MAR-2001 (TrEMBLrel. 1
01-MAR-2001 (TrEMBLrel. 1
01-JUN-2003 (TrEMBLrel. 2
Hypothetical protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q89E49;
01-JUN-2003
01-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sasamoto S., Watanabe A., Kohara M., Matsumoto M., & Tabata S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bradyrhizobium japonicum.
Bacteria; Proteobacteria; Alphaproteobacteria; Rhizobiales;
Bradyrhizobiaceae; Bradyrhizobium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-JUN-2003 (TrEMBLrel. 24
Blr7238 protein.
OrderedLocusNames=blr7238;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pseudomonas aeruginosa.
Bacteria; Proteobacteria; Gammaproteobacteria;
Pseudomonadaceae; Pseudomonas.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Complete genomic sequence of nitrogen-fixing symbiotic bacterium Bradythizobium japonicum USDA110.";
DNA Res. 9:189-197(2002).
EMBL; AP005961; BAC52503.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q9HWP2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OrderedLocusNames=PA4139;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=287;
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be A., Idesawa K., Iriguchi M., Kawashima
o M., Shimpo S., Tsuruoka H., Wada T., Yam
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Matches
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SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
PubMed=14656565;
Chen C.-Y., Wu K.-M., Chang Y.-C., Chang C.-H., Tsai
Liao T.-L., Liu Y.-M., Chen H.-J., Shen A.B.-T., Li
Shao C.-P., Lee C.-T., Hor L.-I., Tsai S.-F.;
Shao C.-P., Lee change analysis of Vibrio vulnificus,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; AP005349; BAC972321; -.

GO; GO:0016787; Fr.hydrolase activity; IEA.

GO; GO:00168448; Fr.N-acetylglucosamine-6-phosphate deacetylase.

GO; GO:0006044; P:N-acetylglucosamine metabolism; IEA.

InterPro; IPR001680; Amidohydro 1.

InterPro; IPR001550; Amidohydro 1ike.

InterPro; IPR003764; NagA.

PEAm; PF01979; Amidohydro 1; 1.

ProDOm; PD001248; Amidohydro 1; 1.

ProDOm; PD001248; Amidohydro 1; 1.

ProDOm; PD001248; Amidohydro 1; 1.

ProDOm; TIGR00221; nagA; 1.

SEGOUENCE 378 AA; 41513 MW; C8E55701F5C2F5BD CRC64;
                                                                                                                                                                                                                                                                                                           01-MAR-2003 (TrEMBirel. 23, Created)
01-MAR-2003 (TrEMBirel. 23, Last sequence update)
01-OCT-2003 (TrEMBirel. 25, Last annotation update)
N-acetylglucosamine-6-phosphate deacetylase.
OrderedLocusNames=VV20736;
"Complete genome sequence of Vibrio vulnificus submitted (DEC-2002) to the EMBL/GenBank/DDBJ c EMBL, AE0.18810; A.007668.1; -. GO; GO:0016787; F:hydrolase activity; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       pathogen.";
Genome Res. 13:2577-2587(2003).
                                                                                               Rhee J.H.,
Choy H.E.;
                                                                                                                                                                                                                                          Bacteria; Proteobacteria;
Vibrionaceae; Vibrio.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bacteria; Proteobacteria;
Vibrionaceae; Vibrio.
NCBI_TaxID=196600;
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01-MAR-2004 (TrEMBLrel. 26, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
                                                                                                                                             STRAIN=CMCP6;
                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                   NCBI_TaxID=672;
                                                                                                                                                                                                                                                                                          Vibrio vulnificus.
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01-MAR-2004
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77.8%;
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                                                                                                                                                                                                                                                                   Gammaproteobacteria; Vibrionales;
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                                                                                                                      s.s.,
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Pred. No.
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2; Mismatches
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                                                                                                                   J.J.,
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                                                                                                                         Moon Y.H.,
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Li J.-С.,
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RESULT
Q7UIF1
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                                                              Query Match
Best Local
                                                  Matches
                                                                                                                                                                                                                        "Complete genome sequence of the marine planctomycere strain 1.";

Proc. Natl. Acad. Sci. U.S.A. 100:8298-8303(2003).

-!- SIMILARITY: Belongs to the Ser/Thr protein kinase family.

EMBL; BX294155; CAD77663.1;

GO; GO:0005524; F:ATP binding; IEA.

GO; GO:0005740; F:protein serine/threonine kinase activity;

GO; GO:016740; F:transferase activity; IEA.

CO:00016740; F:transferase activity; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Complete
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GO; GO:0008448; F:N-acetylglucosamine-6-phosphate deacetylase.
GO; GO:0006044; P:N-acetylglucosamine metabolism; IEA.
InterPro; IPR001680; Amidohydro_1:
InterPro; IPR011550; Amidohydro_1ike.
InterPro; IPR011059; Metalo_hydrolase.
InterPro; IPR011059; Metalo_hydrolase.
Pfam; PP01979; Amidohydro_1; 1.
ProDom; PD001248; Amidohydro_1; 1.
PTGRFAMs; TIGR00221; nagA; 1.
                                                                                                  Pfam; PF00069; Pkinase; 1.

Probom; PD000001; Proc kinase; 1.

PROSITE; PS00101; PROTEIN KINASE ATP; 1.

PROSITE; PS00111; PROTEIN KINASE DOM; 1.

PROSITE; PS00108; PROTEIN KINASE ST; 1.

ATP-binding; Complex proteome; Kinase;

Serine/threonine-protein kinase; Transferase.

Serine/threonine-protein kinase; Transferase.
                                                                                                                                                                                                                                                                                                                                                     MEDLINE=22735913; PubMed=12835416;
Gloeckner F.O. Kube M., Bauer M., Teeling H., Lo
Ludwig W., Gade D., Beck A., Borzym K., Heitmann
Schlesner H., Amann R., Reinhardt R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q7UIF1;
01-OCT-2003 (TrEMBLrel. 25, Last
01-OCT-2003 (TrEMBLrel. 26, Last
01-WAR-2004 (TrEMBLrel. 26, Last
Serine/threonine-protein kinase.
OrderedLocusNames=RB12572;
                                                                                                                                                                                                       GO; GO:0006468; P:protein amino acid
InterPro; IPR000719; Prot_kinase.
InterPro; IPR008271; Ser_thr_pkin_As.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bacteria; Planctomycetes; Planctomycetacia; Planctomycetales; Planctomycetaceae; Pirellula.
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                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=117;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rhodopirellula baltica.
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138
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5; Conserv
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 GIVPVHEM 145
                       GLYPIHOM
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                                                Conservative
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77.8%;
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62.5%;
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Last annotation updat
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Pred. No.
                                                  Score 37; DB
Pred. No. 1.4e
3; Mismatches
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                                                                                                                                                                                                                                                                                                                                          the marine planctomycete Pirellula sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5084CDA042824B68 CRC64;
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                                             1.4e+02;
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                                                                            Length 812;
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RESULT 14 Q84DX1 ID Q84DX1

PRELIMINARY;

PRT;

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Search completed: December Job time: 51.7143 secs

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16:33:36

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RESULT 15
Q89Y03
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Best Local S
Matches 7
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SEQUENCE FROM N.A.

MEDLINE=22632143; PubMed=12747404;

Maiwald M., Lepp P.W., Relman D.A.;

Manalysis of conserved non-rRNA genes of "Analysis of conserved non-rRNA genes of Syst. Appl. Microbiol. 26:3-12(2003).

EMBL, AF483650; AAO84489.1; ClDC13FB5A
                                                                                                   Query Match
Best Local S
Matches 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q89Y03 PRELIMINAKY; FAL, Q89Y03; Q89Y03; (TrEMBLrel. 24, Created) 01-JUN-2003 (TrEMBLrel. 24, Last sequence up 01-JUN-2003 (TrEMBLrel. 24, Last annotation on this contains a subunit IV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cytochrome O ubiquinol oxidase subunit IV.

Name=cyoD; OrderedLocusNames=blr0152;
Bradyrhizobium japonicum.
Bacteria, Proteobacteria, Alphaproteobacteria, Rhizobiales;
Bradyrhizobiaceae; Bradyrhizobium.

NCBI_TaxID=375;
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01-JUN-2003 (TrEMBLrel. 24, Created)
01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Possible VLV repeat protein.
Tropheryma whipple (Whipple's bacillus) (Tropheryma whippelii).
Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
                                                                                                                                                                                                               Complete
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN=USDA110;

MEDLINB=22484998; PubMed=12597275;

MEDLINB=22484998; PubMed=12597275;

Kaneko T., Nakamura Y., Sato S., Minamisawa K., Uchium
Kaneko T., Nakamura Y., Idesawa K., Iriguchi M., Kav
Sasamoto S., Watanabe A., Idesawa K., Iriguchi M., Kav
Sasamoto S., Watanabe A., Shimpo S., Tsuruoka H., Wada
Kohara M., Matsumoto M., Shimpo S., Tsuruoka H., Wada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Micrococcineae; Cellulomonadaceae; Tropheryma.
NCBI_TaxID=2039;
                                                                                                                                                                                                                                                          Bradyrhizobium japonicum USDA110.";
DNA Res. 9:189-197(2002).
EMBL; AP005935; BAC45417.; -.
InterPro; IPR005171; CCX4_pro.
Pfam; PP03626; CCX4_pro; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                 Cabata S.;
                                                                                                                                                                                                                                                                                                                                                                                                  Complete genomic sequence of nitrogen-fixing
116 MMPIHQMS 123
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                                                                                                                                                                                                               proteome.
126 AA;
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87.5%;
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75.0%;
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Pred. No. 35;
2; Mismatches
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4 M., Kawashima K.,
Wada T., Yamada
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Result
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Maximum DB
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Perfect score:
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 score greater t
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 protein search, using
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1: geneseqp1980s:*
 Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Copyright
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geneseqp2003as:*
geneseqp2003bs:*
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geneseqp2000s:*
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 GenCore version (c) 1993 - 2004
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                  AAV32285
AAQ17734
AAV178121
AAAV41079
AAW837073
AAW837093
AAW80209
AAW863837
AAW83837
AAW820209
AAW42339
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AAW44290
AAF215830
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AAG15801
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AAW14944
AAY95321
AAY95324
AAY41078
AAY41076
AAY41076
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Compugen Ltd
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Aaw14944 Chimeric
Aay95321 Pig costi
Aay95321 Pig costi
Aay95321 Pig costi
Aay95321 Canine B7
Aay32178 Catine B7
Aay32278 Catine CD
Aay32278 Feline CD
Aay31734 Feline CD
Aay41079 Feline B7
Aaw90209 hB7.1his
Aaw90209 hB7.1his
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Aaw42339 CD86 extr
Aaw42339 CD86 extr
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Aar71478 B70 type
Aay44290 Human B7.
Aac15830 Human B7.
Aac15830 Human B7.
Aac15801 Human B7.
Aac15801 Human B7.
Aac15801 Human B7.
Aac167984 Human B 1.
                                                                                                                                                                                                                                        Description
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                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 1
AAY95330
ID AAY9
XX
   Gallus sp.
Sus scrofa.
Chimeric.
                                                                                                                                                                                                                               Peptide
                                                                                                                                                                                                                                                            Key
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25-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                 AAY95330;
 The present sequence is that of chimeric peptide 6 comprising T-cell epitope OVA323-339 from chicken egg albumin (ovalbumin) and a B-cell epitope comprising amino acids 151-162 of pig co-stimulatory molecule
                                     Disclosure; Page 23; 81pp; English
                                                                                   WPI; 2000-442537/38.
                                                                                                                                                                                     29-JUN-2000.
                                                                                                                                                                                                                                                 Peptide
                                                      Novel methods for \tilde{\mathbb{N}} improving tolerance to a xenograft comprising immunizing a mammal with a T-cell epitope and a B-cell epitope.
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ALIGNMENTS		AAE19141	AAU00949	ADK68226	AAU00950	AAB87417	ADK68210	AAB48665	ADD45300	AAW34452	0	ADP12511	ADJ54626	ADI19364	Ø	ADD45302	ABW00432	AAE14634	ABB78364	AAB37085	AAW73638
		Aae19141 Murine B7	49 Human I	68226 Novel NO	00950 Human	17 Human	68210	8665 Human	5300 Rat Prot	4452 Rat C	0207 hB7	Adp12511 Protein e	54626	119364 Human	69860 Human	45302 Human	00432 Human	4634 Human B7	b78364 Amino a	37085 Human	638 Human B7

OVA323-339-pig costimulatory molecule B7-2 epitope hybrid peptide 19-DEC-1998; 23-OCT-1999; xerotransplantation; organ transplant; T-cell epitope; ovalbumin; chicken. Co-stimulatory molecule; CD86; B7-2; pig; immunosuppressive; xerotransplantation; organ transplant; vaccine; B-cell epitope; AAY95330 standard; peptide; 29 AA 17-DEC-1999; Lechler RI, Rogers NJ, WO200037102-A2 LAB PLC. (revised)
(first entry) 98GB-00027921 99GB-00025015 99WO-GB004200 /note= "OVA323-339" 18. .29 /note= "B7-2 amino acids 151. Location/Qualifiers Dorling σ

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RESULT 2
AAW14944
ID AAW1
XX AAW1
AC AAW1
XX X AAW1
XX X Y AAW1
XX Y AAW1

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Best Local S
Matches 12
                              Antibodies binding to porcine but not human cell interaction puseful to treat and assay for rejection of xenografted porcine tissues or cells.
                                                                                                                                             WPI; 1997-212855/19.
N-PSDB; AAT62939.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Region
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26-SEP-1996;
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monoclonal antibody; chimeric antibody; diagnosis.
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                                                                                                                                                                                                                                                                                           (ALEX-) ALEXION PHARM INC.
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16-JUN-1997
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(first entry)
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96US-00004489.
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246. .250
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Pred. No. 0.0
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                                                                                                                                                                                                                                                                                                                                                                                      Co-stimulatory molecule; CD86; B7-2; pig; immunosuppressive; xerotransplantation; organ transplant; vaccine; epitope.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAY95321;
          Lechler RI,
                               (MLML-) ML LAB
                                                     19-DEC-1998;
23-OCT-1999;
                                                                                    17-DEC-1999;
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                                                                                                                              WO200037102-A2
                                                                                                                                                           Peptide
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                                                                                                                                                                                                                                                                                                                                                                 Sus scrofa.
                                                                                                                                                                                                                                                                                                                                                                                                                      Pig costimulatory molecule CD86 (B7-2).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY95321 standard; protein;
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il Similarity 100.0%;
il; Conservative 0
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          Rogers NJ,
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151. .1
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.162
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N-PSDB; AAA49661.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
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23-OCT-1999;
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                              (MLML-) ML LAB
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12; Conserv
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99GB-00025015
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                                                                                                                                                                                                                                                                                                                     "epitope"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CD86 (B7-2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 69;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 3; Length 325; 0.01;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 immunosuppressive;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
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The present sequence is that of human co-stimulatory molecule CD86 (B7-CC 2). CD86 plays a key role in T cell costimulation. The invention relates CC to a novel strategy for inhibiting costimulation by porcine cells of thuman T cells, with particular importance in the context of comman T cells, with particular importance in the context of the cortansplantation of porcine organs. Recipients are immunised with CC hybrid synthetic peptides comprising a T cell epitope conjugated to context of the porcine costimulatory molecules CD80, CD86 or CD40 (see ANY95321-24). Peptides that induce antibodies specific for regions of CC costimulatory molecules involved in binding to their counter-receptors on CC transplanted organ will are capable of blocking the delivery of CC costimulation. Once the antibody response has been induced, the CC transplanted organ will recall this response due to the expression of the CC costimulatory molecules, thereby sustaining the response, and providing an endogenous mechanism of costimulatory blockade. The method is useful CC for improving the tolerance of a host to xenografts, particularly porcine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel methods for improving tolerance to a xenograft comprising immunizing a mammal with a T-cell epitope and a B-cell epitope.
Sequence 325 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Fig 26; 81pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Lechler RI,
                                                        pancreatic islet cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2000-442537/38.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rogers NJ,
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 밁
                                     Query Match
Best Local S
Matches 12
151
                                      12;
                  1 CSSTQGYPEPQR 12
                                                 Similarity
 CSSTQGYPEPQR 162
                                      Conservative
                                                100.0%; Score 69; DB 3; Length 325; 100.0%; Pred. No. 0.01;
                                       <u>,</u>
                                        0,
                                         Indels
                                         0
                                        Gaps
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0

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RESULT 5
AAY41078
B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; canine; graft rejection; inflammation; arthritis; atopic dermatitis.
                                                                                                                                                                                      Canine B7-2S
                                                                                                                                                                                                        20-DEC-1999
                                                                                                                                                                                                                            AAY41078;
                                                                                                                                                                                                                                              AAY41078 standard; protein; 280
                                     19-MAR-1998;
17-APR-1998;
                                                                   19-MAR-1999;
                                                                                      23-SEP-1999
                                                                                                         WO9947558-A2
                                                                                                                            Canis familiaris.
                                                                                                                                                                                     protein.
                                                                                                                                                                                                         (first entry)
                   CORP
                                     98US-0078765P.
98US-00062597.
                                                                    99WO-US006187.
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Claim 4; Page 109-111; 148pp; English

New isolated B7 and CTLA4 nucleic acids, used to develop products for treating, e.g. autoimmune and atopic diseases.

Sim G,

Yang S,

Sellins

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N-PSDB; AAZ27921, AAZ27923 WPI; 1999-571822/48

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RESULT 6
ANY41076
ANY41076
ANY41076
ANY41076
ANY4
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ANC ANY
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Matches 9
Query Match
Best Local Similarity
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diagnosis
                                                                                                                                                                                                                                                                                     The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, and the encoded proteins can be used for preventing or treating diseases, and the encoded proteins can be used for preventing or treating diseases, tumor autoimmune diseases, allergic reactions, infectious diseases, tumor accordance of the seases.
                                                                                                  Sequence 329 AA;
                                                                                                                                                              diagnosis
                                                                                                                                                                                          development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 4; Page 97-99; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New isolated B7 and CTLA4 nucleic acids, used to develop products for treating, e.g. autoimmune and atopic diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; AAZ27913,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-MAR-1998;
17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO9947558-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; canine; graft rejection; inflammation; arthritis; atopic dermatitis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAY41076;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 280 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Canine B7-2 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-DEC-1999
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9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Yang S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CSSIQGYPEPK 168
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                                                                                                                                                              and drug screening
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tle, sheep or pets.
and drug screening
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
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98US-00062597.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAZ27915
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78.3%;
81.8%;
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Pred. No. 2.2;
1; Mismatches
Score
Pred.
No.
DB
2.6;
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2.2;
                        2;
                        Length 329
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
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RESULT 7
AAY32778
ID YAAY3
XX AAY3
XX AAY3
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XX AAY3
XX CD86
KW Feli
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                                                                                        CC coexpression of CD86 with the costimulatory molecules CD28 (see AAY32279) CC and a tumour antigen or an antigen from a pathogenic organism has the cability to activate or enhance activation of T-lymphocytes. Coexpression of CD86 with CTIA-4 (see AAY32280) has the ability to regulate activation of T-lymphocytes. The invention provides isolated nucleic acids encoding CC feline CD86 (B7-1) ligand, feline CD89 (B7-1) ligand, feline CD89 receptor or acids, and polypeptides encoded by the nucleic acids. It also provides vaccines comprising the CD80, CD86, CD28 or CTIA-4 polypeptides and cC vaccines comprising the CD80, CD86, CD28 or CTIA-4 polypeptides and cC immunodeficiency virus (FIV), feline leukaemia virus, feline infectious ceritonitis virus, feline panleukopaenia virus, feline calicivirus, cc immunodeficiency virus (FIV), feline herpesvirus, feline calicivirus, feline revirus, feline panleukopaenia virus, feline calicivirus, cc virus, feline sarcoma virus, feline herpesvirus, feline borna disease cvirus, rabies virus, bacterial pathogen, or parasite (all clamed).

CV vaccines capable of enhancing an immune response, and vaccines capable of suppressing an immune response (suitable for treating an autonimune disease or tissue or organ transplant rejection) are claimed. (Updated on
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                feline leukaemia virus; feline infectious peritonitis virus; feline panleukopaenia virus; feline callcivirus; feline reovirus-3; feline panteukopaenia virus; feline coronovirus; feline syncytial virus; feline rotavirus; feline herpesvirus; feline Borna disease; feline sarcoma virus; feline herpesvirus; feline Borna disease; rables virus; chlamydia; Toxoplasmosis gondii; Dirofilaria immitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Novel feline proteins used to produce feline vaccines which prevent infectious disease or to promote growth in homologous or heterologous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present sequence represents feline CD86 (B7-2) ligand, from isolated cDNA of peripheral blood mononuclear cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 1A; Fig 3A; 186pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Collison EW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAY-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CD86;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12-SEP-2003
15-FEB-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAZ3,4785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9.
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                                                                       to standardise OS
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(first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A & M SYSTEM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1:
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Query Match Best Local S Matches

Similarity 9; Conserv

Conservative

78.3%; 81.8%;

Score 54; Pred. No.

Mismatches 2.6; DB 3;

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Indels

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Gaps

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Length 329;

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RESULT 8
AAY32285
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                                                                                                                                 This sequence represents feline CD86 (B7-2), as deduced from peripheral CC blood mononuclear cell cDNA (see AAZ3483). Manipulating the expression CC of CD28 or CTIA-4 (and/or their co-stimulatory ligands CD80 and CD86) CC regulates T cell proliferation and cytokine release. The invention CC acid, inserted into a nonessential genomic region, that encodes feline CC acid, inserted into a nonessential genomic region, that encodes feline CC acid, inserted into a nonessential genomic region, that encodes feline CD28, CD80, CD86 or CTIA-4 protein, or their immunogenic fragments, and CC expressed when the recombinant virus is introduced into a suitable cost. The invention also provides: a recombinant virus further comprising CC a foreign nucleic acid encoding an immunogen derived from a feline CC pathogen, recombinant viruses capable of enhancing an immune response to protect against disease; recombinant viruses expressing an immune response in a feline, e.g. for treatment of autoimmune disease or transplant rejection; and credime or eliminate a tumour in cats. (Updated on 12-SEP-2003 to
                                       Query Match
Best Local S
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12-SEP-2003
28-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                        Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                   Novel recombinant virus useful as immunomodulators, particularly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Winslow BJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-APR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tumour; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CD86; B7-2; feline; cat; recombinant virus; vaccine; immunomodulator;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Feline CD86
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                                                                                             Sequence
                                                                                                                        standardise OS field)
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SCHERING-PLOUGH
                                       Similarity 9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      standard;
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CSSTQGYPEPQ 11
                                                                                               329
                                                                                                                                                                                                                                                                                                                                                                        Fig 3A; 230pp; English.
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                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cochran
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(first entry)
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                                                      78.3%;
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                                       Score 54; DB 3; Pred. No. 2.6; 1; Mismatches
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                                                                  Length 329;
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RABULT 9
AAOL7734
ID AAOL7734
AC AAOL7
AC AAOL7
AC AAOL7
AC Cat;
KW Cat;
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KW
RESULT 10
AAU78121
ID AAU78
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AC AAU78
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AC AAU78
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DT 02-JUI
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention relates to a recombinant virus comprising at least one foreign nucleic acid encoding a protein selected from feline cytotoxic Tlymphocyte accessory molecules CD28, CD80, CD86 or CTLA-4, which is capable of expression when the virus is introduced into an appropriate host. The virus can be administered to the feline in order to elicit or enhance an immune response to prevent or treat feline immunodeficiency disease, feline leukemia, feline infectious peritonitis, cancers, degenerative and autoimmune diseases and immunodeficiency. The present sequence is a cytotoxic Tlymphocyte accessory molecule described in the exemplification of the invention
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New recombinant virus, useful for immunizing felines to prevent or treat feline immunodeficiency virus, comprises foreign nucleic acid encoding feline cytotoxic T lymphocyte accessory molecules CD28, CD80, CD86 or
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
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                                                                                         AAU78121;
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9; Conserv
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                                                                                                                                             standard;
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                                                                                                                                             protein;
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81.8%;
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Pred. No. 2.6;
1; Mismatches
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02-JUL-2002

(first entry

Feline

CD86 protein

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RESULT 11
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ID AAY41
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CC This invention relates to the DNA and protein sequences encoding a CC soluble CD80 ligand, soluble CD86 ligand, soluble and membrane-bound CD28 (receptor and soluble or membrane bound CTLA-4 receptor. The invention CC also relates to a vaccine comprising an effective amount of these creeptor proteins. A vaccine is useful for inducing immunity or enhancing an immune response in a cat. The protein sequences of the invention are useful for suppressing an immune response in a feline suffering from an autoimmune disease or the recipient of a tissue or organ transplant. A vector containing the DNA sequences of the invention are captured to the invention are redirecting an immune response in a feline to an immunogen such as rabies virus, feline leukaemia (FaLV), feline infectious peritonitis virus (FTP), panleukopaenia virus, calcivirus, reovirus type 3, rotavirus, cornavirus, syncitial virus, calcivirus, sarcoma virus, borna disease virus or a parasite. The protein sequences may be further utilised to promote growth in homologous or heterologous feline species. Enhancement of immunity through the interaction of soluble CD80 or soluble CD86 with CD80 or CTLA-4 or inhibition of an immune response through the interaction of an immune response through the could have multiple, even detrimental effects on overall or long term of negative sequence represents feline CD86 protein of the
                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 9; Conserv
                                AAY41079 standard; protein; 332 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Polynucleotide encoding polypeptide of CD80 ligand, CD86 ligand, CD28 receptor or CTLA-4 receptor as vaccine for inducing immune response in feline suffering from autoimmune disease or tissue or organ transplant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Collisson EW,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAY-1998;
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81.8%;
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Pred. No. 2.6;
1; Mismatches
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RESULT 12
AAW08473
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection,
                                                                                                                                                                    CTLA4; CD28; ligand; B7-2; B lymphocyte antigen; B-cell; costimulation; immunoglobulin; antibody; autoimmune disease; allergy; tumour; vaccine; graft versus host disease; T-cell; T lymphocyte; TH2 response;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 332 AA;
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                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                        Human B lymphocyte antigen B7-2 constant region
                                                                                                                                                                                                                                                                                                                                                     08-APR-1997
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17-APR-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAY41079,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Feline B7-2 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (HESK-) HESKA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1999-571822/48.
DB; AAZ27929, AAZ27931.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CSSTQGYPEPQ 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity 81.0
9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Yang S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CSSIQGYPEPK 169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     and drug screening
                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-0078765P
98US-00062597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US006187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sellins
                                                                                                                                                  immunostimulant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         78.3%;
81.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 54;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 332
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19-DEC-1996

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AAB37023
AAB37093
AAB37093
AAB37093
AC AAB37
AC Immun
AC 
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local (
                                                                                                                                                                              26-JUL-1993;
19-AUG-1993;
03-NOV-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A cDNA clone (AAT49198) codes for the constant region-like domain (AAW08473) of human B-lymphocyte antigen B7-2 (see also AAW08467), a CTLA4/CD28 ligand which costimulates T cell activation. It was obtd. PCR amplification (see also AAT49604-05) and cloned into pNRDSH/IgG1. 2 constant region-IgG1 constant region fusion protein, B7-2CIg, was expressed in COS and CHO cells. Such fusion proteins can be used to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB37093 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA encoding a B7-2 fusion protein - used lymphocyte antigens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (DAND )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              06-JUN-1996;
                                                                                                                                                                                                                                                                         26-JUL-1994;
                                                                                                                                                                                                                                                                                                                    10-OCT-2000
                                                                                                                                                                                                                                                                                                                                                               US6130316-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          antigen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human B7-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 102 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Immunomodulator;
                                                                  Freeman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (mmunomodulator; fusion protein; human; murine; mouse; lymphocyte; CD28;
intigen; extracellular domain; CTL44; immunoglobulin constant region;
inmunogeniotty; tumour; sarcoma; antigen presenting cell; macrophage;
cell-mediated immune response; transplantation; vaccination;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1997-077269/07
                       2000-655681/63
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                       construct.
                                                                                                             DANA FARE
REPLIGEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DANA FARBER CANCER INST
REPLIGEN CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAT49198.
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ઇ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CSSIHGYPEPKK 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   T cell-mediated immune responses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           constant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                             FARBER CANCER
                                                                     Nadler
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first
                                                                                                                                                                            93US-00101624.
93US-00109393.
93US-001477773.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96WO-US009052
                                                                                                                                                                                                                                                                         94US-00280757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           domain
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                                                                     ž
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66.7%;
                                                                  Gray GS,
                                                                                                                                     INST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 51;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                     Greenfield
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2.4;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       og
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       regulate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ъу
в7-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       w
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CC peptide, and a second nucleotide sequence encoding a second peptide. The CC first nucleotide sequence hybridizes in 6 X sodium chloride/sodium CC citrate (SSC) at 45 deg. C, followed by a wash in 0.2 X SSC at 50 deg. C C to a portion of a nucleotide sequence which encodes a human or murine B CC lymphocyte antigen (B7-2) extracellular domain. The first peptide has the CC ability to bind CD28 or CTLA4. The first peptide has an amino acid cextracellular domain of a human B7-2 peptide has an amino acid cextracellular domain of a human B7-2 peptide (AAB37085). The second compresents the himan B7-2 constant domain, used for generating an hB7-c represents the himan B7-2 constant domain, used for generating an hB7-c 2/Ig fusion construct. The nucleic acid molecules are useful in various expression vectors to direct synthesis of the corresponding proteins or ceptides in a variety of hosts, particularly eucharyotic cells, e.g. canamnalian or insect cell culture. The nucleic acids are also useful for enhancing the immunogenicity of a mammalian cell, e.g. tumour cell (sarcoma) or an antigen presenting cell (macrophage). The fusion proteins cor peptides are useful for enhancing or suppressing T cell-mediated cuseful for enhancing the efficacy of vaccination against a variety of pathogens, and may also be used to upregulate an immune response against capaticular pathogen during an infection or against a tumour in a tumour capan capaticular pathogen during an infection or against a tumour in a tumour capan capaticular and constant and con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Nucleic acids and fusion proteins of CTLA4/CD28 ligands, useful for enhancing or suppressing T cell-mediated immune responses, especially during tissue, skin or organ transplantation, or in graft-versus-host
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Col 105-106; 83pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     comprising
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 to an isolated nucleic acid molecule encoding a first nucleotide sequence encoding a fir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          English.
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             S
                             Query Match
Best Local S
Matches
24
              щ
                             Similarity
8; Conserv
CSSIHGYPEPKK 35
              CSSTQGYPEPQR
                               Conservative
                                      73.9%;
                            Score 51; DB 3
Pred. No. 2.4;
2; Mismatches
                                              ω
                               2
                                             Length 102;
                               Indels
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0

Sequence

102

AA,

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RESULT 14
AAW90209
Peptide
                                                                                                                                       B7 binding molecule; costimulatory molecule; B7.1; CD80; B7.2; T cell activation; inhibitor; graft versus host disease; transplant rejection; allograft rejection; autoimmune disease; therapy; human; hB7.1his.
                                                                                                           Synthetic
                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                   AAW90209
                                              Domain
                                                                 Peptide
                                                                                                Chimeric
                                                                                                                                     therapy;
                                                                                                                                                                                        hB7.1his soluble
                                                                                                                                                                                                            10-MAY-1999
                                                                                                                                                                                                                                                   standard;
                                                                                                                                                                                                           (first entry)
                          /note= "human B7.2 (mature protein) 239. .244
                                                                           Location/Qualifiers
                                                       /note= "potential
                                                                                                                                                                                        fusion
                                                                                                                                                                                                                                                  protein; 244 AA.
                  "histdine detection/purification tag"
                                                                                                                                                                                        protein.
                                                        eukaryotic secretory signal
                                     extracellular
                                                                                                                                                 disease; allergy;
                                                         peptide"
                                                                                                                                                                      CD86;
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WO9858965-A2

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RESULT 15
AAW86005
AA W86
XX AAW86
XX AAW86
XX Tumou
KW Tumou
KW MOOOOC
KW CO-St
XX Homo
OS Synth
OS Chim
XX Hept
FT Pept
FT Prot
FT Prot
FT Pept
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Best Local S
Matches 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            hexahistidine detection/purification tag. It was produced by PCR amplification (see AAX01603-04) of hB7.2 cDNA in pcroduced by PCR amplification of the PCR fragment into baculotransfer vector pAcSC2 and expression in Sf9 Spodoptera frugiperda insect cells. The invention relates to molecules such as diabodies, trivalent and tetravalent antibodies and small antigen binding peptides which can cross-link, or cross-react with, B7.1 and B7.2 expressed on professional antigen presenting cells leading to the inhibition of antigen-specific T cell activation. Methods to produce such molecules are provided. The molecules are used to treat or prevent diseases of the immune system, in particular graft rejection, graft versus host disease, allergy and autoimmune
                                                                                                                                                                                                                                                     Tumour interacting protein; cancer; gene therapy; vector; 5T4 antigen; monoclonal antibody; single chain antibody; mouse; human; B7-2; co-stimulatory molecule.
                                                                                                                                                                                                                                                                                                                  Human B7-2 extracellular domain and linker.
                                                                                                                                                                                                                                                                                                                                                                                  AAW86005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 244 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  graft rejection, g diseases (claimed)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New molecules which bind B7.1 and B7.2 - useful to prevent and treat immune diseases including allograft rejection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-DEC-1998
                    WO9855607-A2
                                                                                                                                                                                                                                                                                                                                                  15-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This 28 kDa soluble fusion protein, termed hB7.2his, is composed of human co-stimulatory molecule B7.2 extracellular domain fused C-terminally to a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 3.1.3; Fig 5; 182pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Lorre K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20-JUN-1997;
                                                               Peptide
                                                                                                               Protein
                                                                                                                                                                                                                                                                                                                                                                                                              AAW86005 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (INNO-) INNOGENETICS NV
                                                                                                                                            Peptide
                                                                                                                                                                                          Chimeric.
                                                                                                                                                                                                         Synthetic.
                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       . Similarity
8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CSSIHGYPEPKK 162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CSSTQGYPEPQR 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sablon E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 97EP-00870092.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98WO-EP003791.
                                                            /label= Mat_protein
/note= "B7-2 extracellular
242. 246
                                                                                                                                                           Location/Qualifiers
                                                                                                                         'label= Sig_peptide
                                                                                                                                                                                                                                                                                                                                                                                                              protein;
                                                                                                               .241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       73.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Buyse M,
                                                   Linker
                                                                                                                                                                                                                                                                                                                                                                                                                246 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 51;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bosman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ທ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5.7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2
                                                                                domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 244;
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Search completed: December 15, Job time : 132.143 secs

2004, 16:37:32

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CSSIHGYPEPKK 162

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                                                                                                            This polypeptide comprises the extracellular domain (amino acids 1-215) CC of human co-stimulatory molecule B7-2 joined to a C-terminal flexible peptide linker. It is part of B7-2:5T4.1 co-stimulatory domain, a fusion protein comprising the B7-2 extracellular domain joined via the linker to a scFv (see AAW86002) derived from murine 5T4 monoclonal antibody. B7-CC 2:5T4.1 cDNA (see AAW86023) can be inserted into vector pCI to allow expression of the fusion protein in mammalian cells. The trophoblast cell comprising a muleotide sequence coding for a tumour interacting protein comprising a muleotide sequence coding for a tumour interacting protein comprising a muleotide sequence coding for a tumour interacting protein concides a protein of interest (POI), the vector being capable of celivery can be in vivo or ex vivo. The vector is used to treat cancer, comprising a TIP purferably a tumour introducing at least 1 centered coding a TIP purferably a tumour binding protein) into a complete cell lineage. B7-2 is expected to bind specifically to compress the cell lineage. B7-2 is expected to bind specifically to
                                                        Query Match
Best Local
                                          Matches
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20-JUN-1997;
04-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New vector encoding a tumour interacting protein for treating cancer contains a desired nucleotide sequence and/or protein which recognise tumours, and is used as a gene delivery system to treat cancer.
                                                                                                          Sequence 246 AA;
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1 CSSTQGYPEPQR 12
                                        Similarity
8; Conserv
                                          Conservative
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97GB-00013150.
97GB-00014230.
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66.7%;
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Sequence: Title: Perfect score:

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4, Appli
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 s
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| Compared_Patents_AA:*
| Compared_Patents_A:*

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US-09-651-200-18
US-09-651-200-19
US-09-303-040-6
US-09-303-040-6
US-09-425-762-4
US-09-425-762-4
US-09-421-1148-6
US-09-910-1748-6
US-09-910-1748-6
US-09-910-1748-6
US-08-101-624-2
US-08-205-697A-23
US-08-403-253A-4
US-09-425-762-2
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38.685 Million cell updates/sec
  Sequence
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    20, Appl
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ITITLE OF INVENTION: Polynucleotides Encoding Members of the Human B
ITITLE OF INVENTION: Lymphocyte Activation Antigen B-7 Family and
ITITLE OF INVENTION: Dolypeptides Encoded Thereby
FILE REFERENCE: 15966-562 (CURA-62)
CURRENT APPLICATION NUMBER: US/09/651,200
CURRENT FILING DATE: 2000-08-30
PRIOR APPLICATION NUMBER: 60/152383
PRIOR APPLICATION NUMBER: 60/152383
PRIOR APPLICATION NUMBER: 60/172909
PRIOR APPLICATION NUMBER: 60/172909
PRIOR APPLICATION NUMBER: 60/183578
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US-09-651-200-20
"--mence 20, Application US/09651200
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SOFTWARE: Patentin Ve.
SEQ ID NO 20
LENGTH: 325
TYPE: PRT
                                                                                                                                                                                                                                                                                                            RESULT 2
US-09-651-200-18
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US-09-651-200-20
Sequence 18, Application US/09651200

Sequence 18, Application US/09651200

Patent No. 6429303

GENERAL INFORMATION:
APPLICANT: Green et al
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
Polymphocyte Activation Antigen B-7 Family and
TITLE OF INVENTION:
Polymphocyte Activation Antigen B-7 Family and
TITLE OF INVENTION:
Polymphocyte Activation Antigen B-7 Family and
TITLE OF INVENTION:
Polymphocyte Activation Antigen B-7 Family and
TITLE OF INVENTION:
POLYMPHORER: US/09/651,200

CURRENT APPLICATION NUMBER: US/09/651,200

CURRENT FILING DATE: 1090-09-03
PRIOR APPLICATION NUMBER: 60/152383
PRIOR APPLICATION NUMBER: 60/172309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 20, Applica Patent No. 6429303 GENERAL INFORMATION:
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Best Local
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12; Conserv
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ilarity 100.0%;
Conservative 0
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US-09-620-461-28
US-09-651-200-6
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US-09-651-200-23
US-09-441-411-20
US-09-441-411-20
US-09-441-411-20
US-09-441-411-20
US-09-441-411-20
US-08-479-744A-23
US-08-205-697A-21
US-08-205-697A-21
US-09-651-200-22
US-09-651-201-22
US-09-651-201-23
US-09-651-201-23
US-09-657-135-3
US-09-657-135-3
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Pred.
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Result No.

Score

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Sequence 6, Application US/09303040

Patent No. 6555671

GENERAL INFORMATION:
APPLICANT: Winslow, Barbara J.
APPLICANT: Winslow, Barbara J.
APPLICANT: Cochran, Mark D.
ITILE OF INVENTION: Recombinant Virus Expressing Foreign DNA Encoding
ITILE OF INVENTION: Feline CD80, Feline CD86, Feline CD28, Feline CTIA-4 or
ITILE OF INVENTION: Feline Interferon-gama And Uses Thereof
ITILE REFERENCE: 54957-B

CURRENT APPLICATION NUMBER: US/09/303,040

CURRENT FILING DATE: 1999-04-30

EARLIER APPLICATION NUMBER: 60/083,870

EARLIER APPLICATION DATE: 1998-05-01

NUMBER OF SEQ ID NOS: 82
SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 6
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                                                                                                                                                                                                                                                                                                                                                    US-09-303-040-6
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CURRENT FILING DATE: 2000-08-30
PRIOR APPLICATION NUMBER: 60/152383
PRIOR TILING DATE: 1999-09-03
PRIOR APPLICATION NUMBER: 60/172909
PRIOR FILING DATE: 1999-12-21
PRIOR FILING DATE: 1999-12-21
PRIOR APPLICATION NUMBER: 60/183578
PRIOR FILING DATE: 2000-02-18
NUMBER OF SEQ ID NOS: 25
SOFTMARE: Patentin Ver: 2.0
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SEQ ID NO 18
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Best Local Similarity 81...
Matches 9; Conservative
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SEQ ID NO 19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Green et al TITLE OF INVENTION: Polynucleotides Encoding Members of the Human B TITLE OF INVENTION: Lymphocyte Activation Antigen B-7 Family and TITLE OF INVENTION: Polypeptides Encoded Thereby FILE REFERENCE: 15966-562 (CURA-62)
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PRIOR APPLICATION NUMBER: 60/1
PRIOR FILING DATE: 2000-02-18
NUMBER OF SEQ ID NOS: 25
SOFTWARE: Patentin Ver. 2.0
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ORGANISM: Canis familiaris
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TYPE: PRT
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Local Similarity 81.8%;
les 9; Conservative
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81.8%;
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Pred. No. 0.3:
1; Mismatches
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0.36;
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                       S
                                                                                                                      ; TOPOLOGY: linear; MOLECULE TYPE: protein US-08-479-744A-47
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US-08-479-744A-47
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Best Local S
Matches 9
                                                                          Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                        PILING DATE: 26-JULY-1993
APPLICATION NUMBER: 08/147,
PILING DATE: 3-NOV-1993
ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
                                                                                                                                                                                TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 47:
SEQUENCE CHARACTERISTICS:
LENGTH: 102 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UNMBER: 08/28(
PILING DATE: 26-UUI-1994
APPLICATION UNMBER: 08/10;
FILING DATE: 28-AUG-1993
APPLICATION UNMBER: 08/10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 329
                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: RF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD, LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.
APPLICANT: Gray, Gary S.
TITLE OF INVENTION: No. 6084067el CTLA4/CD28 Ligands and
TITLE OF INVENTION: Uses Therefor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/08, FILING DATE: June 7, 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET:
                                                                                                                                                                                                                                             TELEPHONE:
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24
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Massachusetts
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                                                                                                                                                                     amino acid
CSSIHGYPEPKK 35
                       CSSTQGYPEPQR 12
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                                                           Conservative
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                                                                          73.9%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US/08/479,744A
                                                                                                                                                                                                                                                                           36,207
ER: RPI-004CP3
                                                         Score 51; DB 3
Pred. No. 0.34;
2; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 4;
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                                                                                         Length 102;
                                                              Indels
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US-08-280-757B-47
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GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 8; Conserv
                                 GENERAL INFORMATION:
APPLICANT: Freeman, Gordon J.
APPLICANT: Madler, Lee M.
APPLICANT: Gray, Gary S.
APPLICANT: Gray, Gary S.
APPLICANT: Gray, Gary S.
TITLE OF INVENTION: No. 6605279el CTLA4/CD28 Ligands and
TITLE OF INVENTION: Usee Therefor
NUMBER OF SEQUENCES: 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: (617) 227-5941 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PILING DATE: 3-NOV-1993
ATTORNBY/AGENT INFORMATION:
NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REGISTRATION NUMBER: RPI-004CP2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Gray, Gary S.

APPLICANT: Greenfield, Edward

TITLE OF INVENTION: No. 6130316el CTLA4/CD28 Ligands and

TITLE OF INVENTION: Uses Therefor

NUMBER OF SEQUENCES: 53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
LENGTH: 102 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER: RP
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Freeman, Gordon J. APPLICANT: Nadler, Lee M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 08/101,624
FILING DATE: 26-JULY-1993
APPLICATION NUMBER: 08/109,393
FILING DATE: 19-AUG-1993
APPLICATION NUMBER: 08/147,773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: 60 St
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY:
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                                                                                                                                                                                           Application US/09425762
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LAHIVE & COCKFIELD, LLP
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Pred. No. 0.
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CSSTQGYPEPQR 12

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Query Match
Best Local Similarity
Matches 8; Conserva
                                                                                        ; TYPE: PRT ; ORGANISM: Homo sapiens US-09-651-200-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-651-200-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: RPI-(
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEPHONE: (617) 227-5941
INFORMATION FOR SEQ ID NO: 47:
SEQUENCE CHARACTERISTICS:
LENGTH: 102 anino acids
TYPE: PMINE SAID
                                                                                                                                                                                              PRIOR APPLICATION NUMBER: 60/11
PRIOR FILING DATE: 1999-09-03
PRIOR APPLICATION NUMBER: 60/11
PRIOR FILING DATE: 1999-12-21
PRIOR APPLICATION NUMBER: 60/16
PRIOR FILING DATE: 2000-02-18
NUMBER OF SEQ ID NOS: 25
                                                                                                                                                                 SOFTWARE:
SEQ ID NO 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                   APPLICATI: Green et al
APPLICATI: Green et al
TITLE OF INVENTION: Polynuclectides Encoding Members of the Human B
TITLE OF INVENTION: Lymphocyte Activation Antigen B-7 Family and
TITLE OF INVENTION: Polypeptides Encoded Thereby
FILE REFERENCE: 15966-562 (CURA-62)
CURRENT APPLICATION NUMBER: US/09/651,200
CURRENT FILING DATE: 2000-08-30
CURRENT FILING DATE: 60/152383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
CONPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/479,744
FILING DATE:
ATTORNEY/AGENT INFORMATION:
ATTORNEY/AGENT INFORMATION:
                                                                                                                                             ENGTH: 323
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nes 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY:
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No. 6429303
MATIC
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                                                                                                                                                                                    PatentIn
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                   Conservative
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66.7%;
                                   73.98;
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Pred. No. 0.34;
               Score 51; DB 4; Length 323; pred. No. 1.1; 2; Mismatches 2; Indels
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CSSIHGYPEPKK 162

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PCT-US94-09642-2
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Best Local S
Matches 8
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CURRENT FILING DATE: 1999-11-16
NUMBER OF SEQ ID NOS: 26
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 22
LENGTH: 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 2, Application PC/TUS9409642 GENERAL INFORMATION:
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               TELEPHONE: 201-822-7398
TELEFAX: 201-822-7039
INFORMATION FOR SEQ ID NO: 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Scholler, Nathalie B.
APPLICANT: Disis, Mary L.
APPLICANT: Hellstrom, Ingegerd
APPLICANT: Hellstrom, Karl Erik
TITLE OF INVENTION: SURFACE RECEPTOR ANTIGEN VACCINES
                                                       NAME: Blasdale, John H. C. REGISTRATION NUMBER: 31,895
REFERENCE/DOCKET NUMBER: DX/
TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-822-7398
SEQUENCE CHARACTERISTICS:
                                                                                                                                                            APPLICATION NUMBER: US 08/120,606
FILING DATE: 13-SEP-1993
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 08/116,882
FILING DATE: 03-SEP-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ZIP: 07940-1000
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                 COMPUTER: Apple Macintosh IIci
OPERATING SYSTEM: System Software 7.1
SOFTWARE: Microsoft Word 5.1a
CURRENT APPLICATION DATA;
APPLICATION NUMBER: PCT/US94/09642
FILING DATE:
                                                                                                                                                                                                                                                                                   CLASSIFICATION:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: Schering-Plough Corporation, M-3-W STREET: One Giralda Farms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: Madison
STATE: New Jersey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         151 CSSIHGYPEPKK 162
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8; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      73.9%; Score 51; DB 66.7%; Pred. No. 1.1 ative 2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Purified Mammalian CTLA-4 Binding Protein and Related Reagents
                                                                                                     DX 0390K1
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Best Local Similarity
Matches 8; Conserv
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US-09-620-461-6
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-910-174B-6
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Best Local Similarity
Matches 8; Conserve
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                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/620,461
CURRENT FILING DATE: 2000-07-20
NUMBER OF SEQ ID NOS: 29
SOFTWARE: FastSEQ for Windows Version 3.
SEQ ID NO 6
LENGTH: 324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/910,174B
CURRENT FILING DATE: 2001-07-20
PRIOR APPLICATION NUMBER: US 09/620,461
PRIOR FILING DATE: 2000-07-20
NUMBER OF SEQ ID NOS: 32
SOFTWARE: PastSEQ for Windows Version 4.0
SEQ ID NO 6
SEQ ID NO 6
                                               Matches
                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                      Sequence 6, Application US/09620461 Patent No. 6635750
                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 6, Application US/09910174B Patent No. 6630575
                                                                                                                                                                                                                                           APPLICANT: Coyle, Anthony J.
APPLICANT: Fraser, Christopher C.
APPLICANT: Manning, Stephen
TITLE OF INVENTION: B7-H2 Molecules, No. 66
TITLE OF INVENTION: Family and Uses Thereof
FILE REFERENCE: 5800-149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Coyle, Anthony J.
APPLICANT: Framer, Christopher C.
APPLICANT: Manning, Stephen
TITLE OF INVENTION: B7-H2 Molecules, No. 6630575el Members of the B7
TITLE OF INVENTION: Family and Uses Thereof
FILE REFERENCE: 35800/236924
                                                                                                                    TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                               151 CSSIHGYPEPKK 162
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                                             8
CSSTQGYPEPQR 12
                                                                                                                                                                                  FastSEQ for Windows Version 3.0
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                                             Conservative
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                                                             73.9%;
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                                             Score 51; DB
Pred. No. 1.1;
2; Mismatches
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Pred. No.
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Pred. No. 1.1
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1.1;
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                                                                         Length 324;
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                                               Indels
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; MOLECULE TYPE: protein US-08-456-104-2
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Best Local Similarity
Matches 8; Conserv
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Patent No. 5861310
                                                                                                                                                                                                                                                        Sequence 2, Patent No.
                                                                            GENERAL INFORMATION:
APPLICANT: Freeman, Gordon J.
APPLICANT: Madler, Lee M.
APPLICANT: Gray, Gary S.
APPLICANT: Gray, Gary S.
TITLE OF INVENTION: No. 5942607el CTLA4/CD28 Ligands and
TITLE OF INVENTION: Uses Therefor
NUMBER OF SEQUENCES: 25
CORRESPONDENCE ADDRESS:
ADDRESSE: LAHIVE & COCKFIELD
ADDRESSE: LAHIVE & COCKFIELD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (617) 227-5941 (INFORMATION FOR SEQ ID NO: 2: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/1
FILING DATE: 26-JUL-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 08/109,393;
APPLICATION NUMBER: 19-AUG-1993
ATTORNEY/AGENT INFORMATION:
NAME: MANDARD AND E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: RPI-008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: TUMOR CELLS MODIFIED TO EXPRESS B7-2 AND B7-3 WITH INCREASED NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Gray, Gary S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: amino acid TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEPHONE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH:
                                                                                                                                                                                                                                                                                                                                                                        157 CSSIHGYPEPKK 168
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                                                              60 State Street, Suite 510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  329 amino acids
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Nadler, Lee M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   73.9%;
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Pred. No. 1
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PAPPLIC.

PILING DATE:

CLASSIFICATION: 45.

PRIOR APPLICATION DATA:

APPLICATION NUMBER: 08/280,75,

FILING DATE: 26-JUL-1994

APPLICATION NUMBER: 08/109,393

FILING DATE: 28-AUG-1993

FILING DATE: 28-AUG-1993

**TCATION NUMBER: 08/101,624

**TCATION NUMBER: 08/101,624
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Best Local Similarity
Marches 8; Conserve
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US-08-479-744A-2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: RPI-
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEPAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 329 anino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2, Appril
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.
APPLICANT: Gray, Gary S.
APPLICANT: Gray, Gary S.
TITLE OF INVENTION: No. 6084067el CTLA4/CD28 Ligands and
TITLE OF INVENTION: Uses Therefor
                                                                                                                                                                                      ZIP: 02109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/479,744A
FILING DATE: June 7, 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 55
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD, LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA: APPLICATION NUMBER: US.
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ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn Release #1.0, Version #1.25
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: protein
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TSA
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                                                                                                                                                                                                                                                                                                                                                                                                                                60 State Street
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Pred. No.
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APPLICATION NUMBER: 08/147,773
FILING DATE: 3-NOV-1993
ATTORNEY/AGENT INFORMATION:
NAME: MANDARDER: 36,207
REFERENCE/DOCKET NUMBER: 36,207
REFERENCE/DOCKET NUMBER: RFI-004CP3
TELECOMMUNICATION INFORMATION:
TELEPAX: (617) 227-7400
TELEPAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
SEQUENCE CHARACTERISTICS:
LENGTH: 329 amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: protein
US-08-479-744A-2
Search completed: December 15, 2004, 16:38:41 Job time: 20.5714 secs
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                                                                                                                                                                              Ouery Match 73.9%; Score 51; DB 3; Length 329; Best Local Similarity 66.7%; Pred. No. 1.1; Matches 8; Conservative 2; Mismatches 2; Indels
                                                                                          157 CSSIHGYPEPKK 168
                                                                                                                            1 CSSTQGYPEPQR 12
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Result
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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Perfect score:
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                                                                                                                                                                                                                                                                                  No
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                                                                                                                                                                                                                                                                                  Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    seq length: 0
seq length: 2000000000
    protein search, using sw model
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Match
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Gapop 10.0 , Gapext 0.5
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/ Cgn2_6/ptodata//pubpaa/USO7_NEW_PUB.pep:*
/ Cgn2_6/ptodata//pubpaa/USO7_NEW_PUB.pep:*
/ Cgn2_6/ptodata//pubpaa/USO6_PUBCOMB.pep:*
/ Cgn2_6/ptodata//pubpaa/USO6_PUBCOMB.pep:*
/ Cgn2_6/ptodata//pubpaa/USO8_PUBCOMB.pep:*
/ Cgn2_6/ptodata//pubpaa/USO8_PUBCOMB.pep:*
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/ Cgn2_6/ptodata//pubpaa/USO9E_PUBCOMB.pep:*
/ Cgn2_6/ptodata//pubpaa/USO9E_PUBCOMB.pep:*
/ Cgn2_6/ptodata//pubpaa/USO9E_PUBCOMB.pep:*
/ Cgn2_6/ptodata//pubpaa/USO0_NEW_PUB.pep:*
/ Cgn2_6/ptodata//pubpaa/USO0_PUBCOMB.pep:*
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36.768 Million cell updates/sec
16 US-10-790-396-7
16 US-10-790-396-26
9 US-09-425-762-47
9 US-09-915-789A-22
16 US-10-334-235-40
9 US-09-945-899A-5
9 US-09-955-866-5
9 US-09-955-866-5
9 US-09-955-788-11
9 US-09-915-738-11
9 US-09-915-738-16
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US-09-303-510-6
US-09-303-040-6
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              Sequence 17, Appl
Sequence 6, Appli
Sequence 6, Appli
Sequence 7, Appli
Sequence 26, Appl
Sequence 27, Appl
Sequence 27, Appl
Sequence 27, Appl
Sequence 28, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 11, Appl
Sequence 11, Appl
                                                                                                                                                                                                                                                                                Description
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45	44	43	42	41	40	39	38	37	36	ω 5	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14
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-10-484-122-	-10-644-671-2	9-910-17	-10-141-953-	09-790-622-	10-403-142-	-10-141-953-8	09-790-622-8	09-789-561-15	03-142-13	-10-614-639A-	-756-983-18	-10-429-079B-	-10-762-128-	-10-756-783-6	643-768-2	-10-318-855-	-10-390-330-	-10-041-319-	-09-350-202-	-09-962-969-2	-09-441-411-	)9-837-867A-2	09-425-762-	09-183-055	08-592-711-	-10-644-671-	09-910-174	-10-276-642-1	0-762-128-	-10-207-655-1	-10-087-192-10
Sequence 6, Appli	equence 28,	quence 28, App	equence 7, F	quence 7,	equence_1	8, Appl	equence 8,	quence 15	é	equence 18, App	quence 18	equence 2, Appl	equence 26, App	ce 6, Appı	Sequence 23, Appl	equence 32, App	equence 4, Appl	equence 8, Appl	ce 4, Appl	equence 23, App	се 26, Арр	equence 23, Appl	equence 2,	4,	4,	Sequence 6	6, Appli	16, App	quence 22,	equence 121, Ap	equence 1

## ALIGNMENTS

RESULT 1
US-10-790-396-17
j Sequence 17, Application US/10790396
j Publication No. US20040157296A1
j GENERAL INFORMATION:

PROTEINS, NUCLEIC

```
GENERAL INFORMATION: Sim, Gek-Kee
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Yang, Shumin
APPLICANT: Sellins, Karen S.
APPLICANT: Yang, Shumin
INTIE OF INVENTION: NOVEL FORMS OF T CELL COSTIMULATORY
FILE REFERENCE: IN-1-C1-PCT
CURRENT APPLICATION NUMBER: US/10/790,396
CURRENT FILING DATE: 2004-03-01
PRIOR APPLICATION NUMBER: US/09/646,561
PRIOR FILING DATE: 2000-091.9
PRIOR APPLICATION NUMBER: 60/078,765
PRIOR FILING DATE: 1998-03-19
PRIOR APPLICATION UNMBER: 09/662,597
PRIOR APPLICATION UNMBER: 09/662,597
PRIOR PILING DATE: 1998-04-17
NUMBER OF SEQ ID NOS: 65
SOPTWARE: Patentin Ver. 2.0
SEQ ID NO 17
LENGTH: 280
TYPE: PRT
ORGANISM: Canis familiaris
US-10-790-396-17
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                                                                            Query Match
Best Local S
Matches 9
                                                                            Local Similarity
es 9; Conserv
158 CSSIQGYPEPK 168
                                CSSTQGYPEPQ 11
                                                                              Conservative
                                                                                                 78.3%;
                                                                              Score 54; DB 16; Length 280; Pred. No. 1.1; Mismatches 1; Indels
                                                                                  0
                                                                                  Gaps
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Sequence 7, Application US/10790396
Publication No. US20040157296A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Sellins, Karen S.
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                                                                                                                                           US-10-790-396-7
                                                                                                                                                                 RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                    ; TYPE: PRT; ORGANISM: feline CD86
US-09-303-040-6
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Best Local Similarity
Matches 9; Conserve
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; TYPE: PRT
; ORGANISM: Feline
US-09-303-510-6
                                                                                                                                                                                                                                                                                                  Query Match 78...
Best Local Similarity 81...
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/09/303,040
CURRENT FILING DATE: 1999-04-30
EARLIER APPLICATION NUMBER: 60/083,870
EARLIER FILING DATE: 1998-05-01
NUMBER OF SEQ ID NOS: 82
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: Feline CD80, Feline CD86, Feline CD28, and Feline TITLE OF INVENTION: Feline CD80, Feline CD86, Feline CD28, and Feline FILE REFERENCE: 54954

CURRENT APPLICATION NUMBER: US/09/303,510A

CURRENT FILING DATE: 1999-04-30

EARLIER APPLICATION NUMBER: 60/083,869

EARLIER FILING DATE: 1998-05-01

NUMBER OF SEO ID NOS: 83

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 6

LENGTH: 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 6, Application US/09303040 Patent No. US20020051792A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 6, Application US/09303510A
PATENT NO. US20020028208A1
GENERAL INFORMATION:
APPLICANT: Collisson, Ellen W.
APPLICANT: Hash, Stephen M.
APPLICANT: Choi, InSoo
APPLICANT: Yang, Shumin
APPLICANT: Sellins, Karen S.
TITLE OF INVENTION: NOVEL FORMS OF T CELL COSTIMULATORY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Winslow, Barbara J.
APPLICANT: Cochran, Mark D.
TITLE OF INVENTION: Recombinant Virus Expressing Foreign DNA Encoding
TITLE OF INVENTION: Feline CD80, Feline CD86, Feline CD28, Feline CTLA-4
TITLE OF INVENTION: Feline Interferon-gama And Uses Thereof
FILE REFERENCE: 54957-B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -09-303-040-6
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1.3;
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    PROTEINS, NUCLEIC
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; Sequence 47, Application US/09425762; Publication No. US20020086414A1; GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/10/790,396
CURRENT FILING DATE: 2004-03-01
PRIOR APPLICATION NUMBER: US/09/646,561
PRIOR FILING DATE: 2000-09-19
PRIOR APPLICATION NUMBER: 60/078,765
PRIOR APPLICATION NUMBER: 09/062,597
PRIOR FILING DATE: 1998-03-19
PRIOR FILING DATE: 1998-04-17
PRIOR FILING DATE: 1998-04-17
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Best Local S
Matches 9
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CURRENT FILING DATE: 2004-03-01
PRIOR APPLICATION NUMBER: US/09/646,561
PRIOR FILING DATE: 2000-09-19
PRIOR APPLICATION NUMBER: 60/078,765
PRIOR APPLICATION NUMBER: 60/078,765
PRIOR APPLICATION NUMBER: 09/062,597
PRIOR FILING DATE: 1998-03-19
PRIOR FILING DATE: 1998-04-17
NUMBER OF SEQ ID NOS: 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 81.0
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQ ID NOS: 65
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Yang, Shumin
APPLICANT: Sellins, Karen S.
TITLE OF INVENTION: ACUE MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-1-C1-PCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 26, Application US/10790396
Publication No. US20040157296A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Ver. 2.0 SEQ ID NO 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILE REFERENCE: IM-1-C1-PCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 329
TYPE: PRT
ORGANISM: Canis familiaris
                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Felis catus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH:
APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.
APPLICANT: Gray, Gary S.
TITLE OF INVENTION: No. 6605279el CTLA4/CD28 Ligands and
TITLE OF INVENTION: Uses Therefor
                                                                                                                                                                                                                                                                                                                                       Local Similarity 81.
                                                                                                                                                                                                                                                          159 CSSIQGYPEPK 169
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81.8%;
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81.8%;
                                                                                                                                                                                                                                                                                                                                       Score 54; DB 16; Length 332; Pred. No. 1.4; Mismatches 1; Indels
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Pred. No. 1
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NUMBER OF SEQUENCES: 5

LAHIVE & COCKFIELD, LLP

COUNTRY: USA STREET: 60 Street CITY: Boston ADDRESSEE:

Massachusetts 60 State Street

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APPLICANT: Chen, Lieping
TITLE OF INVENTION: B7-H3 AND B7-H4, NOVEL IMMUNOREGULATORY
TITLE OF INVENTION: MOLECULES
FILE REFERENCE: 07039-219001
CURRENT APPLICATION NUMBER: US/09/915,789A
CURRENT FILING DATE: 2002-06-04
PRIOR APPLICATION NUMBER: US 60/220,991
PRIOR APPLICATION NUMBER: US 60/220,991
PRIOR FILING DATE: 2000-07-27
NUMBER OF SEQ ID NOS: 23
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 22
LENGTH: 219
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Best Local Similarity
Matches 8; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; MOLECULE TYPE: protein
US-09-425-762-47
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                                                                                                                                    US-09-915-789A-22
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REGISTRATION NUMBER: 36,007
REFERENCE/DOCKET NUMBER: RPI-(
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-941
INFORMATION FOR SEQ ID NO: 47:
SEQUENCE CHARACTERISTICS:
LENGTH: 102 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 22, Application US/09915789A Patent No. US20020168762A1
                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                Query Match
                                                                                                                                             LENGTH: 219
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM CC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION: PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
ATTORNEY/AGENT INFORMATION:
                                                                                  Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 102 amino acids
TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER:
 129 CSSIHGYPEPKK 140
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                                                                8; Conserv
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                                  CSSTQGYPEPQR 12
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                                                                                  73.9%;
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                                                                Score 51; DB 9; Pred. No. 2.8; 2; Mismatches
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Pred. No. 1
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                                                                                                  Length 219;
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                                                                    Indels
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PRIOR APPLICATION NUMBER: US 10/060,585
PRIOR FILING DATE: 2002-01-29
PRIOR APPLICATION NUMBER: PCT/GB00/04317
PRIOR FILING DATE: 2000-11-13
PRIOR APPLICATION NUMBER: US 09/445,375
PRIOR FILING DATE: 1998-06-04
NUMBER OF SEQ ID NOS: 40
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 40
LENGTH: 246
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US-10-334-235-40
US-10-334-235-40
; Sequence 40, Application US/10334235
; Publication No. US20040131591A1
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                                                                                                           US-09-845-899A-5
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Query Match
Best Local Similarity 65..
Conservative
                                                                                                                                                                                NUMBER OF SEQ ID NOS: 27
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity Matches 8; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                         APPLICANT: TRUNEH, ALEMSEGED
TITLE OF INVENTION: HEXAMERIC FUSION PROTEINS AND USES
TITLE OF INVENTION. THEREFOR
FILE REFERENCE: P50496
CURRENT APPLICATION NUMBER: US/09/845,899A
CURRENT FILING DATE: 2001-04-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Lamikandra, Abigail
TITLE OF INVENTION: VECTOR SYSTEM
FILE REFERENCE: 53268200920
CURRENT APPLICATION NUMBER: US/10/334,235
CURRENT FILING DATE: 2002-12-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Oxfard Biomedica (UK) Ltd
APPLICANT: Kingsman, Alan
APPLICANT: Bebbington, Christopher
                                                                                                                                                                                                                                          CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 09/202,346
PRIOR FILING DATE: 1999-01-13
PRIOR APPLICATION NUMBER: US 60/043,948
PRIOR FILING DATE: 1997-02-19
PRIOR APPLICATION NUMBER: US 60/038,915
PRIOR FILING DATE: 1997-02-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: CHAIKIN, MARGERY ANN
APPLICANT: LYN, SALLY DOREEN PATRICIA
APPLICANT: SWEET, RAYMOND W.
APPLICANT: TRUNEH, ALEMSEGED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT ORGANISM: Homo sapiens
                                                                                                                          LENGTH: 260
TYPE: PRT
ORGANISM: HOMO SAPIENS
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Bebbington, Ch
Carroll, Miles
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                                               73.9%;
66.7%;
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Pred. No. 3.1;
2; Mismatches
                          Score 51; DB 9; pred. No. 3.3; 2; Mismatches
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                                                                    Length 260;
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157 CSSIHGYPEPKK 168

CSSTQGYPEPQR 12

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CURRENT APPLICATION NUMBER: US/09/955,866
; CURRENT FILING DATE: 2001-09-19
; RRIOR APPLICATION NUMBER: 60/233,867
; PRIOR FILING DATE: 2000-09-20
; NUMBER OF SEQ ID NOS: 30
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 5
; LENGTH: 323
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-955-866-5
                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:

APPLICANT: FOX, Michael

APPLICANT: Fang, Mei

APPLICANT: Fang, Mei

TITLE OF INVENTION: B7-Like Molecules and Uses Thereof

FILE REFERENCE: 00-513-A

CURRENT APPLICATION NUMBER: US/09/896,738

CURRENT FILING DATE: 2001-06-29

PRIOR APPLICATION NUMBER: 60/215,645

PRIOR APPLICATION NUMBER: 60/215,645

PRIOR APPLICATION STANDARD: 23

SOFTWARE: PATENTING DATE: 2003-06-30

NUMBER OF SEQ ID NOS: 23

SOFTWARE: PATENTIN Ver. 2.0

SEQ ID NO 11

SEQ ID NO 11

LENGTH: 323
RESULT 12
US-09-915-789A-16
US-09-915-789A-16
; Sequence 16, Application US/09915789A
; Patent No. US20020168762A1
; GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                 ; TYPE: PRT; ORGANISM: Homo sapiens US-09-896-738-11
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US-09-896-738-11
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US-09-955-866-5
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Best Local Similarity
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Best Local
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APPLICANT: Sullivan, John K.
APPLICANT: Holst, Paige
APPLICANT: Yoshinaga, Steven Kiyoshi
TITLE OF INVENTION: B7-Like Polypeptides and Uses Thereof
FILE REFERENCE: 00,759-A
                                                                                                                                           151 CSSIHGYPEPKK 162
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APPLICANT: Morris, David W.
APPLICANT: Engelhard, Eric K.
APPLICANT: Engelhard, Eric K.
APPLICANT: Engelhard, Bric K.
FITLE OF INVENTION: CONCER
FITLE OF INVENTION: CANCER
FILE REFERENCE: 529452000122
CURRENT APPLICATION NUMBER: US/10/087,192
CURRENT FILING DATE: 2002-03-01
PRIOR APPLICATION NUMBER: US 9/747,377
PRIOR APPLICATION NUMBER: US 9/747,377
PRIOR FILING DATE: 2000-12-22
PRIOR APPLICATION NUMBER: US 09/798,586
PRIOR FILING DATE: 2001-13-02
PRIOR FILING DATE: 2001-13-02
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Best Local Similarity
"""" 8; Conserv?
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US-10-087-192-1080
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 22
LENGTH: 323
TYPE: PRT
ORGANISM: Homo sapiens
US-09-441-411-22
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Best Local Similarity
Thiches 8; Conserv
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Publication No. US20030008342A1
GENERAL INFORMATION:
APPLICANT: Scholler, Nathalie B.
APPLICANT: Disis, Mary L.
APPLICANT: Hellstrom, Ingegerd
APPLICANT: Hellstrom, Karl Erik
TITLE OF INVENTION: SURFACE RECEPTOR ANTIGEN VACCINES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 23
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 16
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CURRENT APPLICATION NUMBER: US/09/915,789A
CURRENT FILING DATE: 2002-06-04
PRIOR APPLICATION NUMBER: US 60/220,991
PRIOR FILING DATE: 2000-07-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILE REFERENCE: 730033.409
CURRENT APPLICATION NUMBER: US/09/441,411
CURRENT FILING DATE: 1999-11-16
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TITLE OF INVENTION: B7-H3 AND B7-H4, NOVEL IMMUNOREGULATORY
TITLE OF INVENTION: MOLECULES
NUMBER OF SEQ ID NOS: 2059
SOFTWARE: FastSEQ for Windows Version 4.0
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2; Mismatches
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Pred. No. 4.1;
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RESULT 15
US-10-207-655-121
Sequence 121, Application US/10207655
Publication No. US20030118592A1
GENERAL INFORMATION:
APPLICANT: Ledbetter, Jeffrey A.
APPLICANT: Hayden-Ledbetter, Martha S.
TITLE OF INVENTION: BINDING DOMAIN-IMMUNOGLOBULIN FUSION PROTEINS
FILE REFERENCE: 390069.441C1
CURRENT APPLICATION NUMBER: US/10/207,655
CURRENT FILING DATE: 2002-07-25
NUMBER OF SEQ ID NOM: 426
SOFTWARE: Patentin version 3.0
SEQ ID NO 121
LENGTH: 323
TYPE: PRT
ORGANISM: Homo sapiens
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; LEWGTH: 323
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-087-192-1080
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                                                                                                                                                    Query Match 73.9%; Score 51; DB 14; Length 323; Best Local Similarity 66.7%; Pred. No. 4.1; Matches 8; Conservative 2; Mismatches 2; Indels
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gene B7-2 prote
                                                                                                                                                                                                                                                     hypothetical prote
sax-3 protein - Ca
hibernation-relate
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butyrophilin precu
butyrophilin - bov
                                                                                                                                                                                                                                                                                                                                                                                             hypothetical prote
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prote
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Query Match Best Local

82.6%; 75.0%;

Length 330;

# ALIGNMENTS

A;Title: Cloning and sequencing of the rabbit gene encoding T-cell costimulatory molecu A;Reference number: I4688; MUID:95369849; PMID:7642234

A;Accession: I46691
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-330 <ISC>
A;Cross-references: UNIPROT:P42071; GB:D49842; NID:g755098; PIDN:BAA08642.1; PID:g75509
C;Superfamily: B7-2 antigen

CD86 precursor - rabbit
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 14-Feb-1997 #sequence\_revision 14-Feb-1997
C;Accession: 146691
R;Isono, T.; Seto, A.
Immunogenetics 42, 217-220, 1995

#text\_change 09-Jul-2004

```
CD86 spliced variant CD86 deltaTM isoform - human
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Date: 30-Jun-2001 #sequence_revision 30-Jun-2001 #text_change 18-Nov-2002
C;Accession: JC7604
R;Magistrelli, G.; Caron, G.; Gauchat, J.F.; Jeannin, P.; Bonnefoy, J.Y.; Delneste, Biophys. Res. Commun. 280, 1211-1215, 2001
A;Title: Identification of an alternatively spliced variant of human CD86 mRNA.
A;Reference number: JC7604
A;Accession: JC7604
A;Accession: JC7604
A;Molecule type: mRNA
A;Residuces: 1-275 cMAG>
C;Comment: This CD86 variant expressed by activated human monocytes, is a costimulat C;Genetice:
A;Genetice: C486deltaTM
C;Superfamily: B-lymphocyte restricted antigen B7
C;Keywords: immune response
                                                                                                                                                                                                                                                                                                                                                                                                  JC7604
CD86 sp
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151
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9; Conserv
                                                                  Similarity
8; Conserv
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                             CSSTOGYPEPOR 12
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 CSSIHGYPEPKK 162
                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                     73.9%;
66.7%;
                                                                    Score 51; DB
Pred. No. 0.32
2; Mismatches
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Pred. No. 0.036;
2; Mismatches
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A;Cross-references: UNIPROT:P42082;
C;Genetics: B7-2
C;Superfam: 1
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C;Species: Mus musculus (house mouse)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 0
C;Accession: 149522
R;Freeman, G.J.; Borriello, F.; Hodes, R.J.; Reiser, H.; Gribben,
J. Exp. Med. 178, 2185-2192, 1993
A;Title: Murine B7-2, an alternative CTLA4 counter-receptor that A;Reference number: 149522; MUID: 94065585; PMID: 7504059
A;Accession: 149522
RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Gene: GDB:CD86; CD28LG2
A;Cross-references: GDB:4;
A;Cross-references: GDB:4;
A;Map position: 3g13.3-3g
C;Superfamily: B7-2 antig
C;Keywords: glycoprotein
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A;Cross-references: UNIPROT:P42081; GB:L25259; NID:g416368; PIDN:AAA58389.1;
A;Cross-references: UNIPROT:P42081; GB:L25259; NID:g416368; PIDN:AAA58389.1;
A;Note: it is uncertain whether Met-1 or Met-7 is the initiator
R;Azuma, M.; Ito, D.; Yagita, H.; Okumura, K.; Phillips, J.H.; Lanier, L.L.;
R;Azuma, M.; Ito, D.; Yagita, H.; Okumura, K.; Phillips, J.H.; Lanier, L.L.;
R;Azuma, M.; Ito, D.; Yagita, H.; Okumura, K.; Phillips, J.H.; Lanier, L.L.;
R;Azuma, M.; Ito, D.; Yagita, H.; Okumura, K.; Phillips, J.H.; Lanier, L.L.;
R;Azuma, M.; Ito, D.; Yagita, H.; Okumura, K.; Phillips, J.H.; Lanier, L.L.;
R;Azuma, M.; Ito, D.; Yagita, H.; Okumura, K.; Phillips, J.H.; Lanier, L.L.;
R;Azuma, M.; Ito, D.; Yagita, H.; Okumura, K.; Phillips, J.H.; Lanier, L.L.;
R;Azuma, M.; Ito, D.; Yagita, H.; Okumura, K.; Phillips, J.H.; Lanier, L.L.;
R;Azuma, M.; Ito, D.; Yagita, H.; Okumura, K.; Phillips, J.H.; Lanier, L.L.;
R;Azuma, M.; Ito, D.; Yagita, H.; Okumura, K.; Phillips, J.H.; Lanier, L.L.;
R;Azuma, M.; Ito, D.; Yagita, H.; Okumura, K.; Phillips, J.H.; Lanier, L.L.;
R;Azuma, M.; Ito, D.; Yagita, H.; Okumura, K.; Phillips, J.H.; Lanier, L.L.;
R;Azuma, M.; Ito, D.; Yagita, H.; Okumura, K.; Phillips, J.H.; Lanier, L.L.;
R;Azuma, M.; Ito, D.; Yagita, H.; Okumura, K.; Phillips, J.H.; Lanier, L.L.;
R;Azuma, M.; Ito, D.; Yagita, H.; Okumura, K.; Phillips, J.H.; Lanier, L.L.;
R;Azuma, M.; Ito, D.; Yagita, H.; Okumura, K.; Phillips, J.H.; Lanier, L.L.;
R;Azuma, M.; Ito, D.; Yagita, H.; Okumura, K.; Phillips, J.H.; Lanier, L.L.;
R;Azuma, M.; Ito, D.; Yagita, H.; Okumura, K.; Phillips, J.H.; Lanier, L.L.;
R;Azuma, M.; Ito, D.; Yagita, H.; Okumura, K.; Phillips, J.H.; Lanier, L.; Lanier,
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C;Date: 10-Sep-1999 #sequence
C;Date: 10-Sep-1999 #sequence
C;Accession: A48754; 8390ence
R;Freeman, G.J.; Gribben, J.G.; Boussiotis, V.A.; Ng, J.W.; Restivo Jr., V.i
Science 262, 909-911, 1993
A;Title: Cloning of B7-2: a CTLA-4 counter-receptor that costimulates human
A;Reference number: A48754; MUID:94053735; PMID:7694363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Status: preliminary; translated A;Molecule type: mRNA
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C;Genetics:
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A; Status: preliminary
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Matches
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;Residues: 7-329 <AZU>
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8; Conserv
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                                                                                                  CTSKQGHPKPKK 168
                                                                                                                                                                   CSSTQGYPEPQR 12
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: 3q13.3-3q21
B7-2 antigen
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OMIM: 601020
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Pred. No. 5.7;
5; Mismatches
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Pred. No.
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R/lsono, T.; Seto, A. 17-220, 1995
A;Title: Cloning and sequencing of the rabbit gene encoding A;Reference number: I46689; MUID:95369849; PMID:7642234
A;Accession: I46690
A;Molecule type: mRNA
A;Residues: 1-299 <1800;
A;Cross-references: UNIPROT:P42070; GB:D49843;
C;Superfamily: B-lymphocyte restricted antigen
                                                                                                                                                                                           C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 14-Feb-1997 #sequence_revision 14-Feb-1997
C;Accession: 146690
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A; Introns: 18/1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         hypothetical protein B0391.10 - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Decies: Caenorhabditis elegans C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004 C;Accession: T18731
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C;Superfamilv:
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A;Title: Genome sequence of a human tumorigenic poxvirus: A;Reference number: Z20876; MUID:96325459; PMID:8670425
A;Accession: T30635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  hypothetical protein 33L - Molluscum contagiosum virus 1
N;Alternate names: MC033L
C;Species: Molluscum contagiosum virus 1
C;Date: 05-Nov-1999 #sequence_revision 05-Nov-1999 #text_change 09-Jul-2004
                                                                             A;Status: preliminary; translated
                                                                                                                                                                                                                                                  CD80 precursor - rabbit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Cross-references: UNIPROT:O62015; A;Experimental source: clone B0391
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A; Residues: 1-92 < WIL>
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A;Residues: 1-579 <SEN>
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Pred. No.
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Pred. No.
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                        PIDN:BAA08643.1;
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R;Ishii, T.; Aoki, N.; Noda, A.; Adachi, T.; Nakamura, R.; Matsuda, T. Biochim. Biophys. Acta 1245, 285-292, 1995
A;Title: Carboxy-terminal cytoplasmic domain of mouse butyrophilin specifically associat A;Reference number: S65133; MUID:96125722; PMID:8541302
A;Accession: S65133
                                                                                                                                                                                                                                                                                                                   A;Molecule type: DNA
A;Residues: 1-288 <-RES>
A;Cross-references: UNIPROT:P33681; GB:M83077; NID:g179327; PIDN:AAA58390.1; PID:g179329
A;Cross-references: UNIPROT:P33681; GB:M83077; NID:g179327; PIDN:AAA58390.1; PID:g179329
A;Freeman, G.J.; Freedman, A.S.; Segil, J.M.; Lee, G.; Whitman, J.F.; Nadler, L.M.
J. Immunol. 143, 2714-2722, 1989
A;Title: B7, a new member of the Ig superfamily with unique expression on activated and A;Reference number: A45803; MUID:9010147; PMID:2794510
A;Accession: A45803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R;Selvakumar, A.; Mohanraj, B.K.; Eddy, R.L.; Shows, T.B.; White, P.C.; Dupont, B. Immunogenetics 36, 175-181, 1992
A;Title: Genomic organization and chromosomal location of the human gene encoding A;Reference number: I54495; MUID:92307753; PMID:1377173
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A;Residues: 1-487 < ISH>
A;Residues: 1-487 < ISH>
A;Cross-references: GB:S80642; NID:g1246078; PIDN:AAB35893.1; PID:g1246079
C;Superfamily: rfp transforming protein
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                                                                             A;Map position: 3q13.3-3q21
A;Introns: 34/1; 140/1; 234/1; 266/1
C;Superfamily: B-1ymohocyte restricted antigen B7
C;Keywords: transmembrane protein
F;1-26/Domain: signal sequence #status predicted
F;248-264/Domain: transmembrane #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N; Alternate names: B-lymphocyte activation antigen
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A; Residues: 1-288 < FRE>
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                                                                                                                                                                                                   A;Gene: GDB:CD80; CD28LG1; CD28
A;Cross-references: GDB:251792; OMIM:112203
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Best Local S
Matches 6
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;Species: Mus musculus (house mouse)
;Date: 28-Oct-1996 #sequence_revision 13-Mar-1997 #text_change 15-Mar-2004
;Accession: $65133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 09-Jul-2004: Accession: I54495; A45803
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  Best Local
Matches
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                                      Query Match
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                   59.4%;
  Score 41; DB Pred. No. 17; 3; Mismatches
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Pred. No.
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12;
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                                        DB 2;
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butyrophilin - bovine
butyrophilin - bovine
C;Species: Bos primigenius taurus (cattle)
C;Species: 30-Apr-1991 #sequence_revision 30-Apr-1991
C;Accession: A37821
C;Accession: A37821
F;Jack, L.J.W.; Mather, I.H.
J. Biol. Chem. 265, 14481-14486, 1990
A;Title: Cloning and analysis of cDNA encoding bov.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R; Taylor, M.R.; Peterson, J.A.; Ceriani, R.L.; Couto, J.R. Biochim. Biophys. Acta 1306, 1-4, 1996
A;Title: Cloning and sequence analysis of human butyrophilin A;Reference number: S70587; MUID:96201696; PMID:8611614
A;Accession: S70587
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C;Species: Cercocebus torquatus (red-crowned mangabey, white-collared mangabey)
C;Date: 11-Apr-1997 #sequence_revision 11-Apr-1997 #text_change 09-Jul-2004
C;Accession: G00031
R;Villinger, F,J
                                                                                                                                                                                                                           RESULT 12
A37821
                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Molecule type: mRNA
A;Residues: 1-526 <TAY>
A;Cross-references: UNIPROT:Q13410; EMBL:U39576;
C;Superfamily: rfp transforming protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C;Species: Homo sapiens (man)
C;Date: 14-Feb-1997 #sequence_revision 13-Mar-1997 #text_change
C;Accession: S70587
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A; Residues: 1-289 <VIL>
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A;Reference number: A37821; MUID:90354441; PMID:2387867
A;Accession: A37821
A;Status: preliminary
A;Molecule type: mRNA
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Matches 7
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                                                                                          1990 cDNA encoding bovine butyrophilin,
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C;Species.
C;Bate: 15-Oct-1999 #suq-
C;Date: 15-Oct-1999 #suq-
C;Accession: T29549
R;Nhan, M.; Hawkins, J.
Rubmitted to the EMBL Data Library, February 1997
A;Bescription: The sequence of C. elegans cosmid ZK377.
A;Reference number: Z20639
A;Reference number: T29549
The company of the compa
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C; Function:
A; Description:
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A;Cross-references: UNIPROT:P18892; GB:M35551; NID:g1763685; PIDN:AAB39766.1; PID:g1627 C;Superfamily: rfp transforming protein C;Keywords: transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: UNIPROT:044928; EMBL:AF041053; NID:g2804779; PIDN:AAC38848.1; PID:gaC;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Status: preliminary; translated A;Molecule type: mRNA A;Residues: 1-1273 <ZAL>
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A;Experimental source: strain Bristol N2; clone ZK377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;Zallen, J.A.; Yi, B.A.; Bargmanu, ....
ell 92, 217-227, 1998
ell 92, 217-227, 1998 immunoglobulin superfamily member SAX-3/Robo directs multiple asp
;Title: The conserved immunoglobulin superfamily member SAX-3/Robo directs multiple asp
:Reference number: Z22160; MUID:98117250; PMID:9458046
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/Species: Caenorhabditis elegans
/Species: Caenorhabditis elegans
/Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004
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A;Molecule type: protein
A;Residues: 31-40,'A',42-50,'Q',52-215 <KON>
A;Residues: 31-40,'A',42-50,'Q',52-215 <KON>
C;Superfamily: complement subcomponent Clq chain A; complement Clq carbox C;Keywords: glycoprotein; hibernation; plasma
F;1-30/Domain: signal sequence #status predicted <SIG>
F;31-215/Product: hibernation-related protein HP-27 #status experimental
F;31-214/Domain: complement Clq carboxyl-terminal homology <ClQ>
F;155/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  hibernation-related protein HP-27 precursor - Siberian chipmunk C;Species: Eutamias sibiricus (Siberian chipmunk) C;Species: Eutamias sibiricus (Siberian chipmunk) C;Date: 16-Feb-1994 #sequence_revision 25-Apr-1997 #text_change 09-Jul-2004 C;Accession: C48150; A41752 R;Takamatsu, N.; Ohba, K.; Kondo, J.; Kondo, N.; Shiba, T. Mol. Cell. Biol. 13, 1516-1521, 1993 Mol. Cell. Biol. 13, 1516-1521, 1993 A;Title: Hibernation-associated gene regulation of plasma proteins with a collagen-like A;Reference number: A48150; MUID:93180799; PMID:8441393 A;Accession: C48150
Search completed: December Job time: 16.2857 secs
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Biol. Chem. 267, 473-478, 1992
A;Title: Identification of novel blood proteins specific for mammalian hibernation. A;Reference number: A41752; MUID:92112696; PMID:1730610
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C48150
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A; Residues: 1-215 < TAK>
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7; Conserva
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77.8%;
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protein search, using

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GenCore version (c) 1993 - 2004

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is the number of results predicted by chance to have a ater than or equal to the score of the result being printed, rived by analysis of the total score distribution.
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104.163 Million cell updates/sec
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P42071
Q9ttf1
Q9ttf2
Q9xsx6
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Q9bdm2
Q9bdm4
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Q95116
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P42081 homo sapien
Aah40261 homo sapi
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Aah56608 mus muscu
Aaq88709 homo sapi
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P42082 mus musculu
Aad25880 mus muscu
                                                                                                                                Q8nc34 homo sapien
Q6p5y4 homo sapien
Aah62581 homo sapi
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Q7tpb4 rattus norv
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                   Q9GL33
Q9GL33;
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Q1_MAR-2001 (TrEMBLrel. 16, L
01_QCT-2003 (TrEMBLrel. 25, L
CD86 antigen (Fragment).
Name=CD86;
Bos taurus (Bovine).
Eukaryota; Metazoa; Chordata;
Mammalla; Eutheria; Cetartiod
Boyinae; Bos.
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002838;
01-JUL-1997
01-JUL-1997
01-OCT-2003
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J. Immunol. 157.3838-3844(1996).

EMBL; L76099; AAB61307.1; -.
HSSP; P42081; INCN.
InterPro; IPR007110; Ig-like.
InterPro; IPR007110; Ig-like.
Ffam; PF00047; 1g: 1.
SMART; SM00406; IGY; 1.
FROSITE; PS50835; IG_LIKE; 1.
FROSITE; PS50835; IG_LIKE; 1.
SEQUENCE 325 AA; 36527 MW; 988BE08137B0597D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A. MEDLINE=97047772; Pu Maher S.E., Karmann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sus scrofa (Pig).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
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NCBI_TaxID=9913
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12; Conserv
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nn K., Min W., Hughes C.C.,
                                                      Chordata; Craniata; Vertebrata; Euteleostomi; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
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AAD25883
BAC37666
Q61238
Q64381
Q94201
100L MOUSE
BAC3038
Q62015
CD80 RABIT
Q9EXRI
Q6EHI2
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Pred. No. 0.00076;
Nismatches 0;
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Bac30938 mus muscul
062015 caenorhabdi
P42070 oryctolagus
Q91yv7 mus musculu
Q9bxr1 homo sapien
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Minimum Maximum

BB BB

seq length: 0
seq length: 2000000000

Total number of hits satisfying chosen parameters:

1825181

1825181 segs, 575374646 residues

Scoring table: Sequence: Perfect score:

BLOSUM62 Gapop 10.0 ,

Gapext 0.5

69

CSSTQGYPEPQR 12

US-09-868-605-14\_COPY\_151\_162

Searched:

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 sm

summaries

Database

UniProt\_02:\*
1: uniprot\_sprot:\*
2: uniprot\_trembl:\*

Result

Score

Query Match

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100.0

score and is Pred. No.

re greater t

CD86\_MOUSE AAD25880 AAD25881

AAH62581 Q8NCB6 QBNBI8

OO2838
OOGL33
CD86 RABIT
OOTTF1
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OOXSX6
OOGMZ7
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RESULT 3

CD86 RABIT
ID CD86 R
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PT 01-NOV
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P42071;
01-NOV-1995
01-NOV-1995
05-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Isono T., Seto A.;

"Cloning and sequencing of the rabbit gene encoding T-cell costimulatory molecules.";

Immunogenetics 42:217-220(1995).

-!- FUNCTION: Receptor involved in the costimulatory signal essential for T lymphocyte proliferation and interleukin 2 production, by binding CD28 or CTLA-4. May play a critical role in the early events of T cell activation and costimulation of naive T cells, such as deciding between immunity and anergy that is made by T cells within 24 hours after activation.

-!- SUBCELIULAR LOCATION: Type I membrane protein.

-!- SIMILARITY: Contains 1 immunoglobulin-like C2-type domain.

-!- SIMILARITY: Contains 1 immunoglobulin-like V-type domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Brooke G.P., Howard C.J., Parsons K.R.;
Submitted (CCT-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; A2291475; CAC13140.1; -.
InterPro; IPR007110; Ig-like.
InterPro; IPR003596; Ig-v.
Ffam; PR00047; ig; 1.
SMART; SM00406; IGv; 1.
PROSITE; PS50835; IG LIKE; 1.
NON TER 284 284 AA; 32021 NM; 797BB6639E297841 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                 Glycoprotein;
                                                                                                                                  InterPro; IPR007110; Ig-like.
InterPro; IPR003006; Ig MHC.
InterPro; IPR003596; Ig_v.
SMART; SM00406; IGv; 1.
                                                                                                                                                                                                                                                                                                    EMBL; D49842; BAA08642.1; -. PIR; 146691; 146691. HSSP; P42081; 1NCN.
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
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TISSUE=Peripheral blood;
Brooke G.P., Howard C.J.
PROSITE; PS50835; IG_LIKE; 1.
PROSITE; PS00290; IG_MHC; 1.
Glycoprotein; Immunoglobulin domain; Receptor; Signal; T-cell;
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STRAIN=B/J X CHBB:HM;
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(Rel. 32, Last sequence update)
(Rel. 44, Last annotation update)
activation antigen CD86 precursor
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Pred. No. 0.0077;
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InterPro; IPR003006; Ig_WHC.
InterPro; IPR003596; Ig_v.
SMART; SM00406; IGv; 1.
PR0SITE; PS50835; IG_LIKE; 1.
PROSITE; PS00290; IG_MHC; UNKNOW SEQUENCE 280 AA; 32265 MW; 3
                                                                                                                                                                                                                                                                                                                  Q9TTF1;
01-MAY-2000 (TrEMBLrel. 1
01-MAY-2000 (TrEMBLrel. 1
01-MAR-2004 (TrEMBLrel. 2
Truncated B7-2 protein.
Q9TTF2 PRELIMINARY;
Q9TTF2;
01-MAY-2000 (TrEMBLrel. 13,
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CARBOHYD
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CARBOHYD
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DOMAIN
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                                                                                                                                                                                                                                                                                        Canis familiaris (Dog).
Rukarvota; Metazoa; Chordata;
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CARBOHYD
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EMBL; AF106827; AAF17298.1; --
HSSP; P42081; 1NCN.
                                                                                                                                                                                                                                               MEDLINE=20093996;
                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
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Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
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                                                                              CSSTQGYPEPQ 11
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330
                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AA;
                                                                                                                                                                                                                                                PubMed=10630300;
                                                                                                                                                                                                                               CD80 and CD86 transcripts that encode secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        213
; 37142 MW;
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247
268
268
330
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135
146
1177
198
                                                                                                        78.3%;
81.8%;
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13,
26,
                                                                                                                               UNKNOWN 1.
MW; 3CBEBCA4D826A7F3 CRC64;
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                                                                                              Score 54; DB
Pred. No. 0.31
1; Mismatches
                                                                                                                                                                                                                                                                                                                            Last sequence update)
Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 57; DB
Pred. No. 0.11
2; Mismatches
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N-linked
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N-linked
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Ig-like C2-type.
Potential.
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Cytoplasmic (Potential).
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B lymphocyte activation antigen Extracellular (Potential).
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                   329
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                                                                                                       DB 2; Length 280; 0.31;
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0.11;
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13, Last Last

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DT RRY RAY DDR RTT DR R
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Best Local S
Matches
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Best Local S
Matches
                                                                                                                                                                                 Choi I.-S., Hash S., Winslow B.J., Collisson E.W Submitted (UUN-1999) to the EMBL/GenBank/DDBJ datembl, AF157827, AAD42974.1; -. HSSP, P42081; INCN.
InterPro; IPR007110; Ig-like.
InterPro; IPR007516; Ig-v.
SMART; SM00406; IGv; I.
PROSITE; PS50835; IG LIKE; 1.
SEQUENCE 329 AA; 37481 MW; A10621E3C00A08BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro; IPR007110; Ig-11ke.
InterPro; IPR003006; Ig_MC.
InterPro; IPR003596; Ig_V.
InterPro; IPR003596; Ig_V.
SMART; SM00406; IGV; I_LYE; 1.
PROSITE; PS00290; IG_MCC; UNKNOWN 1
PROSITE; PS00290; IG_MCC; UNKNOWN 1
SEQUENCE 329 AA; 37774 MW; D98BH
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01-MAR-2004 (T
B7-2 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLINE=20180222; PubMed=10713336;
Choi I.S., Hash S.M., Winslow B.J., Collisson
"Sequence analyses of feline B7 costimulatory
"Sequence analyses of feline B7 231(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
MEDLINE=20093996; PubMed=10630300;
Yang S., 51m G.-K.;
"New forms of dog CD80 and CD86 transcripts that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Canis familiaris (Dog).
Eukaryota; Metazoa; Chordata; Craniata; Ves
Mammalia; Eutheria; Carnivora; Fissipedia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Felis silvestris catus (Cat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.
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01-OCT-2003
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                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
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P42081; INCN.
159
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9; Conserv
                                                                                           Similarity 9; Conser
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CSSIQGYPEPK
                                      CSSTQGYPEPQ 11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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                                                                                           Conservative
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                                                                                                             78.3%;
81.8%;
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Last sequence update)
Last annotation update)
                                                                                      Score 54; DB 2;
Pred. No. 0.37;
1; Mismatches
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Pred. No. 0.37;
1; Mismatches
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ia; Canidae;
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Σ
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molecules.";
                                                                                                                                           Length 329;
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                                                                                                                                                                                           CRC64;
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Canis.
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RESULT 7

RESULT 7

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Query Match
Best Local S
Matches 9
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Best Local &
Matches
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Nishimura Y., Shimojina M., Miyazawa T., Sato E.,

Izumiya Y., Ikeda Y., Mikami T., Takahashi E.;

"Molecular cloning of the cDNA encoding the felin
rectivation antigen B7-1 (CD80) and B7-2 (CD86) ho
rinteract with human CTLA419.";

Euir J. Immunogenet. 27:427-430(2000).

RMSL; AB030652; BAB11688.1; -.

RMSL; AB030652; BAB11688.1; -.

RMSP; P42081; 1NCN.
InterPro; IPR003596; Ig_v.

RMART; SM00406; IGv; 1.

RROSITE; PS50835; IG LIKE; 1.

SEQUENCE 332 AA; 37812 MW; 672C8B3667D1E3C0 C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q95116;
Q95116;
Q1-DEC-2001
01-DEC-2001
01-OCT-2003
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01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
B-lymphocyte activation antigen B7-2 (CD86).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Felis silvestris catus (Cat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Carnivora; Fissipedia; Felidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Felis silvestris catus (Cat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Carnivora; Fissipedia; Felidae;
MCBI_TaxID=9685;
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                                                                                                                                    SMART; SM00406; IGV; 1.
PROSITE; PS50835; IG_LIKE; 1.
SEQUENCE 332 AA; 37826 MW;
                                                                                                                                                                                                                                                                                                          costimulatory molecules.";
Vet. Immunol. Immunopathol.
EMBL; AV007704; AAG23342.1;
HSSP; P42081; 1NCN.
                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=21390213; PubMed=114 Yang S., Sellins K.S., Powel Wovel transcripts encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Name=CD86;
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InterPro; IPR003596; Ig_v.
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9; Conserv
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9; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                           PubMed=11498243;
K.S., Powell T., Sto
s encoding secreted
                                   78.3%;
81.8%;
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19,
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Last
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Pred. No. 0.38;
1; Mismatches
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       Score 54; DB Pred. No. 0.38
1; Mismatches
                                                                                                                                            8BFC8B3667D1E3D8 CRC64;
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              Indels
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ologues which
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Felis.
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Felis.
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A Willinger F., Bostik P., Mayne A.E., King C.L., Genain C.P.,
A Weiss W.R., Ansari A.A.;
I Cloning, sequencing, and homology analysis of nonhuman primate
T Fas/Fas-ilgand and co-stimulatory molecules.";
I Immunogenetics 53:315-328(2001).
IR EMBL; AF344840, AAK37536.1; -.
IR GO; GO:0015021; C:integral to membrane; ISS.
IR GO; GO:0015026; F:coreceptor activity; ISS.
IR GO; GO:0005515; F:protein binding; ISS.
IR GO; GO:0015026; F:coreceptor activator activity; ISS.
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"Cloning, sequencing, and homology analysis of Fas/Fas-11gand and co-stimulatory molecules.";
Immunogenetics 53:315-328(2001).
EMBL; AF344836; AAK37532.1; -.
HSSP; P42081; INCN.
HSSP; P42081; TCN.
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MEDLINE=21383618; PubMed=11491535;
MEDLINE=21383618; PubMed=11491535;
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01-JUN-2001 (TrEMBLrel. 17,
01-JUN-2001 (TrEMBLrel. 17,
01-CCT-2003 (TrEMBLrel. 25,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cercocebus torquatus atys (Red-crowned mangabey) (Sooty mangabey). Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
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01-JUN-2001 (TrEMBLrel.
01-JUN-2001 (TrEMBLrel.
01-OCT-2003 (TrEMBLrel.
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NCBI_TaxID=9531;
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Papio anubis (Olive baboon).
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InterPro; IPR003596;
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Pred. No. 0.69;
2; Mismatches
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R GO; GO:0015025; F:coreceptor activity; ISS.
R GO; GO:0015025; F:coreceptor activity; ISS.
R GO; GO:001556; F:cranscriptional activator activity; ISS.
R GO; GO:0016566; F:transcriptional activator activity; ISS.
R GO; GO:0016566; F:coreceptor activator activity; ISS.
R GO; GO:004506; P:positive regulation of interleukin-2 biosyn. . .
R GO; GO:004504; P:positive regulation of T-helper 2 cell diff. . .
R GO; GO:0045610; P:positive regulation of Transcription; ISS.
R GO; GO:0045011; P:positive regulation of transcription; ISS.
R GO; GO:0045011; P:positive regulation of transcription; ISS.
R GO; GO:0042110; P:T-cell activation; ISS.
R GO; GO:0042110; P:T-cell activation; ISS.
R InterPro; IPR003101; Ig-like.
R InterPro; IPR003596; Ig v.
R SMART; SM00406; IOV; I.
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Best Local
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PROSITE;
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EMBL; AF344861; AAK37543.1; -.
HSSP; P42081; INCN.
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SEQUENCE
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                                                                                                    SEQUENCE
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Weiss W.R., Ar
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Villinger F., Bostik P., Mayne A.E.,
                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cercopithecus aethiops (Green monkey)
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Pred. No. 0.83
2; Mismatches
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CD86 protein.
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a; Vertebrata; Euteleostomi;
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Weiss W.R., Ansat.
RT "Cloning, sequencing, and homorpy

Fas/Fas-ligand and co-stimulatory molecules.";

RT Fas/Fas-ligand and co-stimulatory

RT Fas/Fas-ligand and co-stimulatory

RT Immunogenetics 53:315-328(2001).

REMBL; AF344857; AAK37540.1; -.

DR GO; GO:0016501; C:hntegral to membrane; ISS.

DR GO; GO:00165026; F:coreceptor activity; ISS.

DR GO; GO:0016503; F:transcriptional activator activity; ISS.

DR GO; GO:0016503; F:transcriptional activator biosyn. .;

DR GO; GO:00450404; P:positive regulation of interleukin-2 biosyn. .;

DR GO; GO:00450404; P:positive regulation of interleukin-4 biosyn. .;

DR GO; GO:0045040; P:positive regulation of T-helper 2 cell diff. .;

DR GO; GO:0045041; P:positive regulation of Trhelper 2 cell diff. .;

DR GO; GO:0043017; P:positive regulation of transcription; ISS.

DR GO; GO:0042110; P:T-cell activation; ISS.

DR GO; GO:0042110; P:T-cell activation; ISS.

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DR SMART; SM00406; IGv; 1.

"herefore; PR550835; IG_LIKE; 1.

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villinger F., Bostik P., Mayne A.E., Weiss W.R., Ansari A.A.; Roloning, sequencing, and homology as Fas/Fas-ligand and co-stimulatory mointunogenetics 53:315-328(2001).
EMBL; ARS37611.1; -. FSSP; P42081; INCN.
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Q9BDM4;
Q1-JUN-2001 (TrEMBLrel. 17,
01-JUN-2001 (TrEMBLrel. 17,
01-OCT-2003 (TrEMBLrel. 25,
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Macaca mulatta (Rhesus macaque).

Eukaryota, Metazoa; Chordata; Cr.

Mammalia; Eutheria; Primates; Ca.
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MEDLINE=21383618; PubMed=11491535;
                                                                                                                                 SEQUENCE FROM N.A.
MEDLINE=21383618; PubMed=11491535;
MEDLINE=21383618; PubMed=1491535;
                                                                                                                                                                                                                                                    CD86 protein precursor.
Macaca nemestrina (Pig-tailed Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates; Cercopithecinae; Macaca.
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NCBI_TaxID=9544;
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                                                                                                                                                                                                                             Cercopithecinae;
NCBI_TaxID=9545;
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Craniata; Vertebrata; Euteleostomi;
Catarrhini; Cercopithecidae;
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annotation
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GO; GO:0015026; F:correceptor activity; ISS.
GO; GO:0015026; F:protein binding; ISS.
GO; GO:0015515; F:protein binding; ISS.
GO; GO:0016563; F:transcriptional activator activity; ISS.
GO; GO:0045086; P:positive regulation of interleukin-2 bios
GO; GO:0045086; P:positive regulation of interleukin-4 bios
GO; GO:0045091; P:positive regulation of T-helper 2 cell di
GO; GO:0045041; P:positive regulation of transcription; ISS.
GO; GO:0043017; P:positive regulation of tumor necrosis fac
GO; GO:0043017; P:positive regulation of tumor necrosis fac
GO; GO:0043017; P:T-cell activation; ISS.
InterPro; IPR003596; Ig_v.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=94053735; PubMed=7694363; Freeman G.J., Gribben J.G., Boussiotis V.A., Ng J. Restivo V.A. Jr., Lombard L.A., Gray G.S., Nadler "Cloning of B7-2: a CTLA-4 counter-receptor that coeff proliferation."; Science 262.000
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SIGNAL
SEQUENCE
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Homo sapiens (Human).
Eukaryota, Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CD86 HUMAN STANDARD; PRT; 329 AA. P42081; Q13655; Q7M4L5; O1-NOV-1995 (Rel. 32, Created) O1-NOV-1995 (Rel. 32, Last sequence update) O1-CCT-2004 (Rel. 45, Last annotation update) T lymphocyte activation antigen CD86 precursor antigen) (CTLA-4 counter-receptor B7.2) (B70) (
                                                                                                                                                Nature [4]
                                                                                                                                                                                                                         SEQUENCE OF 7-329
MEDLINE=94050123;
Azuma M., Ito D.,
                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A. (ISOFORM 2).
MEDLINE=21092744; PubMed=11162656; DOI=10.1006/bbrc.
Magistrelli G., Caron G., Gauchat J.F., Jeannin P.,
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                                       Green
                                                                             TISSUE=Foreskin;
MEDLINE=95331831;
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Green N.R., Gray G.S.;
"Genomic organization of
B-lymphocyte antigen B
                                                              Jellis
                                                                                                                         SEQUENCE OF 7-329
                                                                                                                                                                                                                                                                                                                                                       "Identification of an alternatively
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N.R., Gray
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366:76-79(1993).
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                                                           PubMed=7541777;
S.S., Rennert P.,
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Catarrhini; Hominidae,
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Bonnefoy J.Y.,
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EMBL; U04343; AAB03814.1; -.
EMBL; U17722; AAA86473.1; JOINED.
EMBL; U17717; AAA86473.1; JOINED.
EMBL; U17718; AAA86473.1; JOINED.
EMBL; U17718; AAA86473.1; JOINED.
EMBL; U17719; AAA86473.1; JOINED.
EMBL; U17712; AAA86473.1; JOINED.
EMBL; U17721; AAA86473.1; JOINED.
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MEDLINE=94348060; PubMed=7520767;

Engel P., Gribben J.G., Freeman G.J., Zhou L.J., Noz Nadler L.M., Wakasa H., Tedder T.F.;

"The B7-2 (B70) costimulatory molecule expressed by activated B lymphocytes is the CD86 differentiation Blood 84:1402-1407 (1994).

-I- FUNCTION: Receptor involved in the costimulatory
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PDB; 1NCN; X-ray; A/B=25-134.
Genew; HGNC:1705; CD86.
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AIM, 601020;

GO:0015021; C:integral to membrane; IC.
GO:0015026; F:coreceptor activity; NAS.
GO:0015026; F:protein binding; IPI.
GO:0005515; F:protein binding; IPI.
GO:0007267; F:ctranscriptional activator activator activator activator activator.
GO:0007267; P:cell-cell signaling; IC.
GO:000595; P:immune response; TAS.
GO:000595; P:positive regulation of cell picture.
GO:000596; P:positive regulation of inter:
GO:004590; P:positive regulation of T-hel;
GO:004591; P:positive regulation of trans.
GO:004591; P:positive regulation of trans.
GO:004591; P:positive regulation of tumor
GO:004201; P:positive regulation of tumor
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SUBCELLULAR LOCATION: Type I membrane protein.

BUBCELLULAR FRODUCTS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIMILARITY: Contains 1 immunoglobulin-like V-type d
SIMILARITY: Contains 1 immunoglobulin-like V-type d
DATABASE: NAME=RROW; NOTE=CD guide CD86 entry;
WWW="http://www.ncbi.nlm.nih.gov/prow/cd/cd86.htm".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IsoId=P42081-2; Sequence=VSP
TISSUE SPECIFICITY: Expressed F
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IsoId=P42081-1; Sequence=Displayed;
ime=2; Synonyms=CD86 deltaEC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (B70) provide similar costimulatory signals for cytokine production, and generation of CTL.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ip 009125;
1 by activa
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          There are no restrictions on its cong as its content is in no way noved. Usage by and for commercial (See http://www.isb-sib.ch/announce/
                                          activity; NAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B lymphocytes
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AAH40261;
SEQUENCE FROM N.A.
TISSUE-Brain;
MEDLINE=22388257; PubMed=12477932;
Strausberg R.L., Feingold E.A., Grouse L.H.,
                                                                                                                                                     02-MAR-2004 (TrEMBLrel.
02-MAR-2004 (TrEMBLrel.
02-MAR-2004 (TrEMBLrel.
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CARBOHYD
CARBOHYD
                                                                                             Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                       CD86 antigen, isoform
Homo sapiens (Human)
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TURN
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InterPro; IPR003006; Ig MHC.
PROSITE; PS50835; IG_LIKE; 1.
PROSITE; PS00299; IG_MHC; FALSE NEG.
3D-structure; Alternative splicing; Glycoprotein;
Immunoglobulin domain; Polymorphism; Receptor; Si
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8; Conserv
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                                                                                           Eutheria;
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329 AA;
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37696 MW;
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Pred. No.
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Cytoplasmic (Pote
Ig-like V-type.
Ig-like C2-type.
Potential.
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/FTId=VSP_09125.
A -> T (in dbSNP:1129055).
/FTId=VAR_014650.
K -> E (in Ref. 4).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     T lymphocyte activation antigen CD86 Extracellular (Potential).
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Search completed: December 15, Job time: 68.2857 secs
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RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hully S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hully S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hully S.W.,
RA Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
RA Griguez C.D., Salska U., Smailus D.E., Schnerch A., Schein J.E.,
RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
RA Long C.DNA sequences.";
RN Long C.Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 8; Conserv
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Submitted (NOV-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; BC040261; AAH40261.1; -.
SEQUENCE 329 AA; 37726 MW; 65D4F3996939CF7D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE=Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                         157 CSSIHGYPEPKK 168
                                                                                                                                                       1 CSSTOGYPEPOR 12
                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                         73.9%; Score 51; DB 2; Length 329; 66.7%; Pred. No. 1.3; ative 2; Mismatches 2; Indels
                           2004, 16:33:38
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1: geneseqp1980s:*
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3: geneseqp2000s:*
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Copyright (c) 1993 - 2004 Compugen Ltd.
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AAY95321
   AAY44414
AAY95329
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Aay32285 Feline CD
Aau78121 Feline CD
Aau78121 Feline B7
Aay41079 Feline B7
Aay95337 OVA323-33
Aay95337 OVA323-33
Aay41078 Cenine B7
Aay41078 Cenine B7
Aay41078 Cenine B7
Aay95331 OVA323-33
Aar95331 OVA323-33
Aar67988 Murine B7
Aaw36468 Mouse B 1
Aaw36468 Mouse B 1
Aaw364641 B7.2-beta
Aay4441 B7.2-beta
Aay4441 B7.2-beta
Aay4441 B7.2-beta
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Aaw14944 Chimeric
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0	u	σı	AAR67984	AAC15801	462	95	AAE15830	AAY44290	AAR71478	0	45	w	ω	AAW86005	AAW90209	AAB37092	AAW08472	AAG00421	AAY95325
Aab37085	Aaw73638	Aaw08467	Aar67984	Aao15801	ത	Add25560	Aae15830	Aay44290	Aar71478	Add45300	Aaw34452	Aaw42339	Aab83837	Aaw86005	Aaw90209	Aab37092	Aaw08472	Aag00421	Aay95325
Human B ]	Human B7-	Human B	Human B l	Human B7-	Humar	Binding d	Human co-	Huma	B70 ty		Rat CD86.	CD86 extr	'Amino aci	Human B7-	hB7.1his	Human B7-	Human B l	Human sec	OVA323-33

ALIGNMENTS

#### RESULT 1 AAY95324 Peptide Human costimulatory molecule CD86 (B7-2). 29-JUN-2000. Peptide Peptide Homo sapiens. Co-stimulatory molecule; CD86; B7-2; human; immunosuppressive; xerotransplantation; organ transplant; vaccine; epitope. 25-SEP-2000 (first entry) AAY95324; AAY95324 standard; protein; 325 WO200037102-A2. Peptide /note= "epitope" 136. .165 /note= "epitope" 101 Location/Qualifiers /note= /note= "epitope" 53. .73 e= "epitope" .129 B

17-DEC-1999; 19-DEC-1998; 23-OCT-1999;

99WO-GB004200. 98GB-00027921. 99GB-00025015.

The present sequence is that of human co-stimulatory molecule CD86 (B7-2). CD86 plays a key role in T cell costimulation. The invention relate to a novel strategy for inhibiting costimulation by porcine cells of

Novel methods for improving tolerance to a xenograft comprising immunizing a mammal with a T-cell epitope and a B-cell epitope.

Fig 26; 81pp; English.

WPI; 2000-442537/38.

Lechler RI,

Rogers NJ,

Dorling

(MLML-) ML LAB PLC.

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RESULT 2
AAY95321
ID AAY9
XX AAY9
AC AAY9
XX Pig
XX Co-s
XX Co-s
XX Co-s
XX Sus
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XX PH Key
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Best Local :
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                                                                                                                                                                                                                                     Co-stimulatory molecule; CD86; B7-2; pig; immunosuppressive; xerotransplantation; organ transplant; vaccine; epitope.
                                                                                                                                                                                                                                                                                 Pig costimulatory molecule CD86 (B7-2).
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Pred. No. 3.5e-306;
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                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 324; Conserv
                                                                                                                                                                                                                                                                                                                                                                              Sequence 325 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Novel methods for improving tolerance to a xenograft comprising immunizing a mammal with a T-cell epitope and a B-cell epitope.
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23-OCT-1999;
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99GB-00025015
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Gaps

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ERSDDAQCDVNILKTASDDNSTTDF 325

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FWQDQDNLVLYELYRGQEKPHNVNSKYMGRTSFDQATWTLKLHNVQIKDKGSYQCFIHHK 109
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Query Match Best Local S Matches

76;

Similarity

23.0%; ilarity 100.0%; Conservative

Score 76; DB 2; Pred. No. 6.80

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                                          A chimeric human/porcine CD86 (B7-2) cell adhesion molecule has amino acid residues 1-4 and 197-245 from human CD86, and amino acids 5-196 fr porcine CD86. It is encoded by a DNA construct (AARC2939) obtd. by PCR amplification of porcine sequences and ligation to a sequence encoding the C-terminal region of human CD86 IgC domain. A signal sequence facilitates efficient secretion from transfected mammalian cells. Antibodies to porcine CD86 protein, P-selectin (see also AAW14945) and vascular cell adhesion molecule (see also AAW14931-42) are useful for diagnosing human rejection of porcine xenotransplants and for improving xenotransplantation of porcine cells, tissues and organs into human recipients. (Updated on 17-0CT-2003 to standardise OS field)
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16-JUN-1997
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monoclonal antibody;
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26-SEP-1996;
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                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Page 69-70; 105pp; English
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chimeric antibody; diagnosis.
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                                 CC from isolated cDNA of peripheral blood mononuclear cells. The coexpression of CD86 with the costimulatory molecules CD28 (see AAY32279) cc and a tumour antigen or an antigen from a pathogenic organism has the cellity to activate or enhance activation of T-lymphocytes. Coexpression of CD86 with CTLA-4 (see AAY32280) has the ability to regulate activation of T-lymphocytes. The invention provides isolated nucleic acids encoding coeffine CD86 ligand, feline CD80 (B7-1) ligand, feline CD28 receptor or feline CD84 (coexpression coefficiency periphocytes and polypeptides encoded by the nucleic acids. It also provides coefficiency comprising the CD80, CD86, CD28 or CTLA-4 (pol52) receptor, as well as vectors comprising the nucleic coefficiency or coefficiency or coefficiency coefficiency of the nucleic acids. It also provides coefficiency or coefficiency or coefficiency coefficiency or coefficiency coefficiency or coefficiency coeff
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CD86; B7-2; ligand; cat; vaccine; feline immunodeficiency virus; FIV; feline leukaemia virus; feline infectious peritonitis virus; feline panleukopaenia virus; feline calicivirus; feline reovirus-3; feline rotavirus; feline coronovirus; feline syncytial virus; feline sarcoma virus; feline herpesvirus; feline Borna disease; rabies virus; chlamydia; Toxoplasmosis gondii; Dirofilaria immitis; parassite; autoimmune disease; transplant rejection; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cat CD86 (B7-2) ligand.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 1A; Fig 3A; 186pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Novel feline proteins used to produce feline vaccines which prevent infectious disease or to promote growth in homologous or heterologous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2000-052972/04.
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Length 329

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RESULT 5
AAY32285
ID AAY3
AC AAY3
AC AAY3
AC AAY3
AC CAAY3
AC CAAY
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                                                                                                                                                                                                                                                                    This sequence represents feline CD86 (B7-2), as deduced from peripheral CC blood mononuclear cell cDNA (see AAZ34838). Manipulating the expression CC of CD28 or CTIA-4 (and/or their co-stimulatory ligands CD80 and CD86) CC regulates T cell proliferation and cytokine release. The invention CC relates to a recombinant virus that contains at least one foreign nucleic acid, inserted into a monessential genomic region, that encodes feline CC D28, CD86, CD86 or CTIA-4 protein, or their immunogenic fragments, and Cis expressed when the recombinant virus is introduced into a suitable CC host. The invention also provides; a recombinant virus feline for their immunogenic fragments, and CC is expressed when the recombinant virus is introduced into a suitable CC host. The invention also provides; a recombinant virus feline for a foreign nucleic acid encoding an immunogen derived from a feline compating the combinant viruses capable of enhancing an immune response to protect against disease; recombinant viruses expressing an immune response in a feline, e.g. Cfor treatment of autoimmune disease or transplant rejection; and crecombinant viruses expressing by the encoding CD80 and/or CD86 used to creduce or eliminate a tumour in cats. (Updated on 12-SEP-2003 to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
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                                                                                                            Query Match
Best Local S
Matches 14
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Best Local (
                                                                                                                                                                                                                           Sequence 329 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Fig 3A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2000-062155/05
N-PSDB; AAZ34838.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel recombinant virus useful as immunomodulators, particularly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Winslow BJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-MAY-1998;
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28-FEB-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tumour; cancer; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CD86; B7-2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Feline CD86
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14; Conserv
                                                                                                                                         Similarity
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SCHERING-PLOUGH
     WTLRLHNVQIKDKG 107
                                                       WTLRLHNVQIKDKG 100
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                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             feline; cat; recombinant virus; vaccine; immunomodulator;
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(first entry)
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                                                                                                                                   4.2%;
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                                                                                                                                      Score 14;
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Pred. No.
                                                                                                                  Mismatches
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                                                                                                                                      DB 3; Le
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RESULT 7
AAU78121
ID AAU7
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AC AAU7
DT 02-J
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DE Feli
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AAO17734
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Best Local (
                                                                                                                                                                                                                                                                                The present invention relates to a recombinant virus comprising at least one foreign nucleic acid encoding a protein selected from feline cytotoxic T lymphocyte accessory molecules CD28, CD80, CD80 or CTLA-4, which is capable of expression when the virus is introduced into an appropriate host. The virus can be administered to the feline in order to elicit or enhance an immune response to prevent or treat feline immunodeficiency disease, feline leukemia, feline infectious peritonitis, cancers, degenerative and autoimmune diseases and immunodeficiency. The present sequence is a cytotoxic T lymphocyte accessory molecule described in the exemplification of the invention
                           02-JUL-2002
                                                      AAU78121;
                                                                               AAU78121 standard;
                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New recombinant virus, useful for immunizing felines to prevent or treat feline immunodeficiency virus, comprises foreign nucleic acid encoding feline cytotoxic T lymphocyte accessory molecules CD28, CD80, CD86 or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cat; CD28; CD80; CTLA-4; CD86; immunogen; vaccine; viral infection; feline immunodeficiency disease; feline infectious peritonitis; feline leukaemia virus; cancer; degenerative disease; autoimmune disease; virucide; immunomodulator; cytostatic; immunodeficiency.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-PSDB; AAL46840.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Feline
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                                                                                                                                                 94 WTLRLHNVQIKDKG 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CD86.
                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                           329
                                                                                                                                                                   WTLRLHNVQIKDKG 100
                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                     Fig 3; 77pp; English.
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                         (first entry)
                                                                                                                                                                                                                                                           AA;
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                                                                             protein;
                                                                                                                                                                                                                 100.0%;
                                                                                                                                                                                                                                 4.2%;
                                                                                329
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Pred. No. 0.00011;
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                                                                                                                                                                                                                               Length 329;
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Feline CD86 protein

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RESULT 8
AAY41079
ID AAY4
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AC AAY4
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                                                                                                                                                                                                                                                                                                                                 CC This invention relates to the DNA and protein sequences encoding a cobbble CD80 ligand, soluble CD80 ligand, soluble and membrane-bound CD28 receptor and soluble or membrane bound CTLA 4 receptor. The invention CC also relates to a vaccine comprising an effective amount of these can immune response in a cat. The protein sequences of the invention are useful for suppressing an immune response in a feline suffering from an autoimmune disease or the recipient of a tissue or organ transplant. A vector containing the DNA sequences of the invention are redirecting an immune response in a feline to an immunogen such as rabies virus, chlamydia, toxoplasmosis gondii, flea, feline immunodeficiency covirus, feline leukaemia (FeLV), feline infectious peritoritis virus, cornavirus, syncitial virus, calcivirus, reovirus type 3, rotavirus, cornavirus, syncitial virus, herpes virus, sarcoma virus, borna disease covirus or a parasite. The protein sequences may be further utilised to promote growth in homologous or heterologous feline species. Enhancement confirmmunity through the interaction of soluble CD80 or CTLA-4 or inhibition of an immune response through the could have multiple, even detrimental effects on overall or long term of the interaction of the present sequence moverall or long term of the interaction of the present sequence represents feline CD86 protein of the
                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                           Query Match
Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Fig 3A; 73pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Polynucleotide encoding polypeptide of CD80 ligand, CD86 ligand, CD28 receptor or CTLA-4 receptor as vaccine for inducing immune response in feline suffering from autoimmune disease or tissue or organ transplant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Collisson EW, Hash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-APR-1999;
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                                                                                                                                                                                                                                                                                   Sequence 329
   AAY41079
                                     AAY41079 standard; protein; 332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (COLL/) COLLISSON E W. (HASH/) HASH S M.
                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       disease.
                                                                                                                                 94
                                                                                                                                                                   87
                                                                                                                                                                                                         14;
                                                                                                                                                                                                                           Similarity
                                                                                                                                                                   WILRLHNVQIKDKG 100
                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                   AA;
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MS
                                                                                                                                                                                                                         4.2%; Score 14; DB 5; Li
100.0%; Pred. No. 0.00011;
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                                     Å
                                                                                                                                                                                                         Mismatches
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RESULT 9
AAY95333
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Best Local S
Matches 14
                                                                                                                                                                                                                                                                                                                                                                                                              The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cattle, sheep or pets. The products can also be used for detection, diseases and functions and formations.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; feline; graft rejection; inflammation; arthritis; atopic dermatitis; ss.
                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New isolated B7 and CTLA4 nucleic acids, used to develop treating, e.g. autoimmune and atopic diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sim G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19-MAR-1998;
17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Felis catus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Feline B7-2 protein.
                                    Gallus sp.
Sus scrofa
                                                                                                                        OVA323-339-pig costimulatory molecule B7-2 epitope hybrid peptide 10
                                                                                                                                                 12-SEP-2003
25-SEP-2000
                                                                                                                                                                                        AAY95333;
                                                                                                                                                                                                                AAY95333 standard;
                                                                                                                                                                                                                                                                                                                                                                                                      diagnosis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 4; Page 116-119; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          treating, e.g. autoimmune and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1999-571822/48.
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                                                                       T-cell epitope;
                                                                                   Co-stimulatory molecule; CD86; B7-2;
xerotransplantation; organ transplant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (HESK-) HESKA
                                                                                                                                                                                                                                                                               94
                                                                                                                                                                                                                                                                                                      87
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                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                               WILRLHNVQIKDKG 107
                                                                                                                                                                                                                                                                                                      WILRLHNVQIKDKG 100
                                                                                                                                                                                                                                                                                                                                                                                 332
                                                                                                                                                                                                                                                                                                                              ilarity 100.0%;
Conservative
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(first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                        sheep or pets.
drug screening
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98US-00062597.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US006187
                                                                         ovalbumin;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAZ27931.
                                                                                                                                                                                                                peptide;
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                                                                         chicken
                                                                                    transplant;
                                                                                                                                                                                                                 30
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                                                                                                                                                                                                                                                                                                                                           Score 14;
; Pred. No.
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                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                       pig; immunosuppressive;
t; vaccine; B-cell epitope;
                                                                                                                                                                                                                                                                                                                                           DB 2; Le
0.00011;
                                                                                                                                                                                                                                                                                                                                                      Length 332;
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Location/Qualifiers

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RESULT 10
AAY95327
ID AAY95
XX
AAY95
AC AAY95
XX
T12-SE
DT 12-SE
DT 25-SE
XX
DE OVA32
XX
CO-SE
KW XETOT
KW T-CeJ
XX
OS Gallı
OS Sus (
Chime
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                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present sequence is that of chimeric peptide 10 comprising T-cell cepitope OVAA23-339 from chicken egg albumin (ovalbumin) and a B-cell cepitope comprising amino acids 76-88 of pig co-stimulatory molecule CD86 (B7-2) (see AAY95321). The invention relates to a novel strategy for carbinisting costimulation by porcine cells of human T cells, with the context of the present importance in the context of xerotransplantation of porcine corgans. Recipients are immunised with hybrid synthetic peptides, such as the present peptide, comprising a T cell epitope conjugated to sequences of the present peptide, comprising a T cell epitope conjugated to sequences of the porcine costimulatory molecules CD80, CD86 or CD40. Peptides that conduce antibodies specific for regions of costimulatory molecules colls are capable of blocking the delivery of costimulation. Once the antibody response has been induced, the transplanted organ will recall this response due to the expression of the costimulatory molecules, thereby sustaining the capables of lockade. The method is useful for improving the tolerance of a host to xenografts, particularly porcine pancreatic islet cells. (Updated on 12-cost conductive pancreatic islet cells.)
                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local (
   Gallus sp.
Sus scrofa.
Chimeric.
                                                                 xerotransplantation; organ transplant; T-cell epitope; ovalbumin; chicken.
                                                                                Co-stimulatory molecule; CD86; B7-2; pig; immunosuppressive; verotransolantation: orden transplant; vaccine; B-cell epito
                                                                                                                               OVA323-339-pig
                                                                                                                                                               12-SEP-2003
25-SEP-2000
                                                                                                                                                                                                                AAY95327
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel methods for improving tolerance to a xenograft comprising immunizing a mammal with a T-cell epitope and a B-cell epitope.
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23-OCT-1999;
                                                                                                                                                                                                                                                AAY95327
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-DEC-1999;
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                                                                                                                                                                                                                                                                                                                               18
                                                                                                                                                                                                                                                                                                                                                             76
                                                                                                                                                                                                                                                                                                                                                                                             13;
                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                               standard;
                                                                                                                                                                                                                                                                                                                                                       YMGRTSFDQATWT 88
                                                                                                                                                                                                                                                                                                                              YMGRTSFDQATWT 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ΑA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Page 23; 81pp; English.
                                                                                                                                                                                                                                                                                                                                                                                          3.9%; Score 13; DB 3; L
ilarity 100.0%; Pred. No. 0.00011;
Conservative 0; Mismatches 0;
                                                                                                                                                              (revised)
(first entry)
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                                                                                                                             costimulatory molecule B7-2 epitope hybrid peptide 3.
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99GB-00025015
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/note=
18. .30
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                                                                                                                                                                                                                                             peptide;
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30
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                                                                                                                                                                                                                                                                                                                                                                                                                       Length 30
                                                                                                                                                                                                                                                                                                                                                                                             Indels
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RESULT 11
AAY41080
ID AAY41
XX AAY41
AC AAY41
XC AAY41
XC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local
                                                                                         B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; feline; graft rejection; inflammation; arthritis; atopic dermatitis; ss.
                                                                                                                                                                                                                 Feline B7-2 protein (larger fragment).
                                                                                                                                                                                                                                                                                      20-DEC-1999
                                                                                                                                                                                                                                                                                                                                                  AAY41080;
                                                                                                                                                                                                                                                                                                                                                                                                           AAY41080 standard; protein; 169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 30 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Page 23; 81pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel methods for improving tolerance to a xenograft comprising immunizing a mammal with a T-cell epitope and a B-cell epitope.
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23-OCT-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29-JUN-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200037102-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               109 KGPHGLVPIHQMS 121
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
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                                                                                                                                                                                                                                                                                   (first
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99GB-00025015
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18. .30
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3.9%; Score 13; DB 3; Le
100.0%; Pred. No. 0.00011;
Mismatches 0;
                                                                                                                                                                                                                                                                                   entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
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RESULT 12
AAY41078
ID AAY41
XX AAY410
XX AAY41
XX Cani
XX B7;
KW B7;
KW B1;
KW graf
XX Can
XX Can
XX PD 23-
XX 19;
PF 19;
XX 19;
PR 17
PR 
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, catts, cattle, sheep or pets. The products can also be used for detection, diagnosis and drug screening
       WPI; 199
N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                        graft
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17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                           Canis familiaris
                                                                                                                                                                                                                                                                                                                                                                                                                                                             B7; CTLA4; T cell costimulatory protein; dog; cat; autoimm allergic reaction; infectious disease; tumor development;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Canine B7-2S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 4; Page 125-126; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    treating, e.g. autoimmune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New isolated B7 and CTLA4 nucleic acids, used to develop products for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19-MAR-1999;
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17-APR-1998;
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DB; AAZ27921, A
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13; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                        rejection;
                                                                         Yang
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                                                                                                                            HESKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TLRKKKKKOPGPS 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TLRKRKKKQPGPS
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                                                                         s,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           provides B7 and CTLA4 (T cell costimulatory proteins)
                                                                                                                            CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0078765P.
98US-00062597.
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98US-00062597
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                                                                            Sellins
                                                                                                                                                                                                                                                                                                                                                                                                                                        inflammation; arthritis; atopic dermatitis.
       AAZ27923
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Pred. No.
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3. 0.00056;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      disease;
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Matches 13
                                                                                                                                 encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection, diagnossis and drug screening
                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                            New isolated B7 and CTLA4 treating, e.g. autoimmune
                                                                                                                                                                                                                                                                                    Claim 4; Page
                                                                                                                                                                                                                                                          invention provides B7 and
                           29
35
                                                      13;
                                                                     Similarity
TGELPCHFTNSQN
                            TGELPCHFTNSON
                                                                                                               280 AA;
                                                       Conservative
                                                                                                                                                                                                                                                                                   109-111; 148pp; English.
                                                                    3.9%;
 47
                            41
                                                                                                                                                                                                                                                                                                              nucleic acids, used to and atopic diseases.
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                                                         Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; canine; graft rejection; inflammation; arthritis; atopic dermatitis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Canine B7-2 protein
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17-APR-1998;
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98US-00062597.
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The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthitic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection, diagnosis and drug screening

Sim G,

Yang S,

Sellins KS

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HESKA

CORP

N-PSDB; AAZ27913,

AAZ27915.

WPI; 1999-571822/48

Claim 4; Page

97-99; 148pp; English.

treating, New isolated B7

e.g.

autoimmune

and CTLA4

nucleic acids, used to develop and atopic diseases.

products for

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The present sequence is that of chimeric peptide 8 comprising T-cell CC epitope OVA323-339 from chicken egg albumin (ovalbumin) and a B-cell CC epitope comprising amino acids 21-32 of gg co-stimulatory molecule CD86 (B7-2) (see AAY95221). The invention relates to a novel strategy for CC inhibiting costimulation by porcine cells of human T cells, with particular importance in the context of xerotransplantation of porcine CC organs. Recipients are immunised with hybrid synthetic peptides, such as the present peptide, comprising a T cell epitope conjugated to sequences CC of the porcine costimulatory molecules CD80, CD86 or CD40. Peptides that CC induce antibodies specific for regions of costimulatory molecules involved in binding to their counter-receptors on human cells are capable of blocking the delivery of costimulation. Once the antibody response has CC been induced, the transplanted organ will recall this response due to the expression of the costimulatory molecules, thereby sustaining the CC response, and providing an endogenous mechanism of costimulatory blockade. The method is useful for improving the tolerance of a host to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel methods for improving tolerance to a xenograft comprising immunizing a mammal with a T-cell epitope and a B-cell epitope.
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Sus scrofa.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; Page 23; 81pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rogers NJ,
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99GB-00025015
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .8
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Pred. No.
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The present sequence is that of chimeric peptide 9 comprising T-cell epitope OVAL23-339 from chicken egg albumin (ovalbumin) and a B-cell epitope comprising amino acids 17-29 of pig co-stimulatory molecule CD86 (87-2) (see AAY93321). The invention relates to a novel strategy for inhibiting costimulation by porcine cells of human T cells, with particular importance in the context of xerotransplantation of porcine organs. Recipients are immunised with hybrid synthetic peptides, such as the present peptide, comprising a T cell epitope conjugated to sequences of the porcine costimulatory molecules CD80, CD86 or CD40. Peptides that induce antibodies specific for regions of costimulatory molecules involved in binding to their counter-receptors on human cells are capable of blocking the delivery of costimulation. Once the antibody response has been induced, the transplanted organ will recall this response due to the expression of the costimulatory molecules, thereby sustaining the
                                                                                                                                                                                                                                                    Novel methods for improving tolerance to a xenograft comprising immunizing a mammal with a T-cell epitope and a B-cell epitope.
                                                                                                                                                                                                                                                                                                WPI; 2000-442537/38
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Co-stimulatory molecule; CD86; B7-2; pig; immunosuppressive; xerotransplantation; organ transplant; vaccine; B-cell epitope; T-cell epitope; ovalbumin; chicken.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAY95332 standard; peptide; 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 29 AA;
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                                                                                                                                                                                                                          Disclosure; Page 23; 81pp; English.
                                                                                                                                                                                                                                                                                                                             Lechler RI,
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23-OCT-1999;
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Sus scrofa.
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25-SEP-2000
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(first entry)
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99GB-00025015.
                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-GB004200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note= "OVA323-339"
18. 29
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
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Search completed: December 15, 2004, 16:56:55 Job time : 158 secs B Ś ន្តន្តន្តន្ត្ Query Match 3.6%; Score 12; DB 3; Length 29; Best Local Similarity 100.0%; Pred. No. 0.001; Matches 12; Conservative 0; Mismatches 0; Indels Sequence 29 AA; response, and providing an endogenous mechanism of costimulatory blockade. The method is useful for improving the tolerance of a host to xenografts, particularly poroine pancreatic islet cells. (Updated on 12-SEP-2003 to standardise OS field) 18 ASLKSQAYFNET 29 ||||||||| 18 ASLKSQAYFNET 29 0; Gaps 0;

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Minimum DB
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Issued_Patents_AA:*
1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*
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1 MGLSNILFVMVLLLSGAASL.....NILKTASDDNSTTDFLKSKL 330
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

20022222222222222222222222222222222222	21	Result No.
	325	Score
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Sequence 6, Appl Sequence 10, Appl Sequence 23, Appl Sequence 23, Appl Sequence 20, Appl Sequence 20, Appl Sequence 21, Appl Sequence 13, Appl Sequence 14, Appl Sequence 14, Appl Sequence 13, Appl Sequence 21, Appl Sequence 13, Appl Sequence 13, Appl Sequence 13, Appl Sequence 14, Appl Sequence 14, Appl Sequence 14, Appl Sequence 14, Appl Sequence 15, Appl Sequence 16, Appl Sequence 17, Appl Sequence 19,	equence 20, equence 18,	CF.

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### ALIGNMENTS

RESULT 1 US-09-651-200-20

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US-09-651-200-20
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PRIOR FILLING DATE: 1999-09-03
PRIOR APPLICATION NUMBER: 60/17
PRIOR FILING DATE: 1999-12-21
PRIOR APPLICATION NUMBER: 60/18
PRIOR APPLICATION NUMBER: 60/18
PRIOR APPLING DATE: 2000-02-18
PRIOR FILING DATE: 2000-02-18
NUMBER OF SEQ ID NOS: 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 20, Application US/09651200
Patent No. 6429303
GENERAL INFORMATION:
APPLICANT: Green et al
TITLE OF INVENTION: Polynucleotides Encoding Members of the Human B
TITLE OF INVENTION: Lymphocyte Activation Antigen B-7 Family and
IITLE OF INVENTION: Polypeptides Encoded Thereby
FILE REFERENCE: 15966-562 (CURA-62)
CURRENT APPLICATION NUMBER: US/09/651,200
CURRENT FILING DATE: 2000-08-30
PRIOR APPLICATION NUMBER: 06/152383
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 325; Conserva
241
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                               DHILWIAALLVTVVVVCGMVSFVTLRKRKKKQPGPSNECGETIKMNRKASEQTKNRAEVH 300
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DHILWIAALLVTVVVVCGMVSFVTLRKRKKKQPGPSNECGETIKMNRKASEQTKNRAEVH
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APPLICANT: Green et al
TITLE OF INVENTION: Polynucleotides Encoding Members of the Human B
TITLE OF INVENTION: Lymphocyte Activation Antigen B-7 Family and
TITLE OF INVENTION: Polypeptides Encoded Thereby
FILE REFERENCE: 15966-562 (CURA-62)
CURRENT APPLICATION NUMBER: US/09/651,200
CURRENT FILING DATE: 2000-08-30
PRIOR APPLICATION NUMBER: 60/152383
PRIOR APPLICATION NUMBER: 60/152383
PRIOR FILING DATE: 1999-09-03
PRIOR APPLICATION NUMBER: 60/172909
PRIOR APPLICATION NUMBER: 60/183578
PRIOR FILING DATE: 1999-12-21
PRIOR APPLICATION NUMBER: 60/183578
PRIOR FILING DATE: 2000-02-18
NUMBER OF SEQ ID NOS: 25
SOFTWARE: Patentin Ver. 2.0
LENGTH: 329
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/ TYPE: PRT
/ ORGANISM: Felis catus
US-09-651-200-18
RESULT
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APPLICANT: Winslow, Barbara J.
APPLICANT: Cochran, Mark D.
TITLE OF INVENTION: Recombinant Virus Expressing Foreign DNA Encoding
TITLE OF INVENTION: Feline CD80, Feline CD86, Feline CD28, Feline CTL
TITLE OF INVENTION: Feline Interferon-gama And Uses Thereof
                                                                                                                                  Matches
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SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 6
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Best Local Similarity
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                                                                                                                                                                      Query Match
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CURRENT APPLICATION NUMBER: US/09/303,040
CURRENT FILING DATE: 1999-04-30
EARLIER APPLICATION NUMBER: 60/083,870
EARLIER FILING DATE: 1998-05-01
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TYPE: PRT
ORGANISM: feline CD86
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100.0%; br
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CURRENT APPLICATION NUMBER: US/99/651,200
CURRENT FILING DATE: 2000-08-30
PRIOR APPLICATION NUMBER: 60/152383
PRIOR FILING DATE: 1999-09-03
PRIOR APPLICATION NUMBER: 60/172909
PRIOR APPLICATION NUMBER: 60/172909
PRIOR FILING DATE: 1999-12-21
PRIOR APPLICATION NUMBER: 60/183578
PRIOR FILING DATE: 2000-02-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 10, Application US/08928383B Patent No. 6210921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
APPLICANT: Green et al
TITLE OF INVENTION: Polynucleotides Encoding Memi
TITLE OF INVENTION: Lymphocyte Activation Antiger
TITLE OF INVENTION: Polypeptides Encoded Thereby
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                                         TELEFAX: (617)742-4214
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE ......

MEDIUM TYPE: Flopy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
CURRENT APPLICATION NUMBER: US/08/928,383B
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APPLICANT: and Marshall S. Horwitz
TITLE OF INVENTION: CAR, A No. 6210921el Coxeackievirus and Adenovirus
TITLE OF INVENTION: Receptor
NUMBER OF SEQUENCES: 26
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD, LLP
                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/026,100
FILING DATE: 13-SEP-1996
                                                                                       NAME: Mandragouras, Amy E. REGISTRATION NUMBER: 36,207 REFERENCE/DOCKET NUMBER: DFT TELECOMMUNICATION INFORMATION: TELEPHONE: (617)227-7400
                                                                                                                                                                                                    FILING DATE: 13-SEP-1996
ATTORNEY/AGENT INFORMATION:
SEQUENCE CHARACTERISTICS:
LENGTH: 95 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local
                                                                                                                                                                                                                                                                                              CLASSIFICATION:
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13; Conserv
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100.0%; Pred. No. 0.00011;
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TITLE OF INVENTION: Polynucleotides Encoding Member
TITLE OF INVENTION: Polynucleotides Encoding Member
TITLE OF INVENTION: Polypeptides Encoded Thereby
FILE REFERENCE: 15966-562 (CURA-62)
CURRENT APPLICATION NUMBER: US/09/651,200
CURRENT FILING DATE: 2000-08-30
PRIOR APPLICATION NUMBER: 60/182383
PRIOR APPLICATION NUMBER: 60/172909
PRIOR FILING DATE: 1999-09-0182383
PRIOR FILING DATE: 1999-09-0182383
PRIOR FILING DATE: 1999-09-0182383
PRIOR FILING DATE: 1999-09-0182383
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                                                                                                            CURRENT APPLICATION NUMBER: US/09/441,411
CURRENT FILING DATE: 1999-11-16
NUMBER OF SEQ ID NOS: 26
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 15
                                                                                                                                                                                                                                                                                                        Patent No. 6734172
GENERAL INFORMATION:
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Matches 12; Conserv
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Best Local
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SEQ ID NO 23
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GENERAL INFORMATION:
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                                                LENGTH: 303
TYPE: PRT
ORGANISM: Mus musculus
-09-441-411-15
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PRIOR FILING DATE: 2000-0
                                                                                                                                                                                                                                                     APPLICANT: Scholler, Nathalie B. APPLICANT: Disis, Mary L. APPLICANT: Hellstrom, Ingegerd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
ORGANISM: Mus musculus
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                                                                                                                                                                           LICANT: Hellstrom, Ingegera
LICANT: Hellstrom, Karl Erik
LE OF INVENTION: SURFACE RECEPTOR ANTIGEN VACCINES
© DEFERENCE: 730033.409
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Local Similarity
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Lymphocyte Activation Antigen B-7 Family and
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Pred. No.
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Pred. No.
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 DB 4;
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0.001;
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              Length 303;
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SOPTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 20
LENGTH: 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
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                                                                                                                                                   COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, V.
CURRENT APPLICATION DATA:
APPLICATION UMBER: US/08/456,104
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILE REFERENCE: 730033.409
CURRENT APPLICATION NUMBER: US/09/441,411
CURRENT FILING DATE: 1999-11-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Scholler, Nathal
APPLICANT: Disis, Mary L.
APPLICANT: Hellstrom, Inge
APPLICANT: Hellstrom, Karl
                                   CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION UNMBER: 08/101,624;
FILING DATE: 26-UUL-1993;
APPLICATION NUMBER: 08/109,393;
APPLICATION NUMBER: 19-AUG-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: SURFACE RECEPTOR ANTIGEN VACCINES
                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.
APPLICANT: Gray, Gary S.
TITLE OF INVENTION: TUMOR CELLS MODIFIED
                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 8
                                                                                                                                                                                                                                                                                                                                           STREET:
     NAME: Mandragouras, Amy E. REGISTRATION NUMBER: 36,20
                                                                                                                                                                                                                                                                                        COUNTRY: U
ZIP: 02109
                                                                                                                                                                                                                                                                                                                           STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Jocal Similarity 100.0%; es 12; Conservative
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5. 6734172
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gordon J
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Karl Erik
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36,207
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 4; Length 303;
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                                                                      ; TOPOLOGY: linear; MOLECULE TYPE: protein US-08-479-744A-23
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US-08-479-744A-23
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                                                                                                                                  FILING DATE: 26-JUL-1994
APPLICATION NUMBER: 08/109,393
FILING DATE: 28-AUG-1993
APPLICATION NUMBER: 08/101,624
FILING DATE: 26-JULY-1993
APPLICATION NUMBER: 08/147,773
FILING DATE: 3-NOV-1993
APPLICATION NUMBER: 36,207
REFERENCE/DECKET NUMBER: 36,207
REFERENCE/DECKET NUMBER: REJI-004CP3
TELEPHONE: (617) 227-7400
TELEPAX: (617) 227-7400
TELEPAX: (617) 227-7401
INFORMATION FOR SEQ ID NO: 23:
SEQUENCE CHARACTERISTICS:
LENGTH: 309 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (617) 227-7400
TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 309 amino ---
Type
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   Matches
                  Query Match
Best Local Similarity
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GENERAL INFORMATION:
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APPLICANT: Nadler, Lee M.
APPLICANT: Gray, Gary S.
TITLE OF INVENTION: No. 6084067el CTLA4/CD28 Ligands and
TITLE OF INVENTION: Uses Therefor
NUMBER OF SEQUENCES: 55
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TOPOLOGY: 1:---
(OLECTIVE)
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PRIOR APPLICATION DATA:
08/280,757
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APPLICATION NUMBER: US/08/
FILING DATE: June 7, 1995
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD, LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
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STATE: Massachusetts
COUNTRY: USA
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FILING DATE: 26-JUL-1994
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                                                                                                                     I: 309 amino acids amino acid
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3.6%; Score 12; ilarity 100.0%; Pred. No. Conservative 0; Mismatc
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   Mismatches
                  DB 3;
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RESULT 12 US-08-205-697A-21

<u>,,</u>

Sequence 21, Application US/08205697A Patent No. 6218510 GENERAL INFORMATION:

APPLICANT: APPLICANT:

Sharpe, Arlene H. Borriello, Francescopaulo Freeman, Gordon J.

APPLICANT:

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US-08-280-757B-23
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                                                                                                                                  US-08-280-757B-23
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GENERAL INFORMATION:
                                                                 Matches
                                                                                             Query Match
                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 08/109,393
FILING DATE: 19-AUG-1993
APPLICATION NUMBER: 08/147,773
FILING DATE: 3-NOV-1993
FILING DATE: 3-NOV-1993
ATTORNEY/AGENT INFORMATION:
NAME: MANDERS: AMY E.
REGISTRATION NUMBER: RPI-004
REFERENCE/DOCKET NUMBER: RPI-004
                                                                                                                                                                                                          TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                         FILING FIGHTION: 435
CLASSIFICATION: 435
PRIOR APPLICATION DATA: 08/101,624
APPLICATION NUMBER: 08/101,624
FILING DATE: 26-JULY-1993
FILING DATE: 08/109,393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Gray, Gary S.
APPLICANT: Greenfield, Edward
TITLE OF INVENTION: No. 6130316el CTLA4/CD28 Ligands and
TITLE OF INVENTION: Uses Therefor
NUMBER OF SEQUENCES: 53
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                  TELEPHONE: (617) 227-7400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
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                                                                                Local
                                                                                                                                                               TYPE: amino acid
TOPOLOGY: linear
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                               87 WILRLHNVQIKD 98
                                                               l Similarity
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WTLRLHNVQIKD 104
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                                                                                                                                                                                               309 amino acids
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                                                                  Conservative
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                                                                               3.6%; Score 12;
100.0%; Pred. No.
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                                                                                                Length 309;
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RESULT 13
US-08-702-525-21
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
APPLICANT: Sharpe
APPLICANT: Borriello, Francescopaolo
APPLICANT: Borriello, Francescopaolo
APPLICANT: Freeman, Gordon
APPLICANT: Nadler, Lee
TITLE OF INVENTION: No. 6294660el Forms of T Cell Costimulatory
TITLE OF INVENTION: Molecules and Uses Therefor
NUMBER OF SEQUENCES: 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: (617)227-5941
INFORMATION FOR SEQ ID NO: 21:
SEQUENCE CHARACTERISTICS:
LENGTH: 309 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: ASCII Text CURRENT APPLICATION DATA:
                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM FC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII Text
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: linear MOLECULE TYPE: protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
STREET: 60 State Street, suite 510
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/205,697
FILING DATE: 02-Mar-1994
                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
STREET: 28 State Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION: TELEPHONE: (617)227-7400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: BWI-120
                                                         APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY:
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NO. 6218510el Forms of T Cell Costimulatory Molecules
and Uses Therefor
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US-09-667-135-33
                                                                                                                                                                           Sequence 33, Application US/09667135
Patent No. 6521749
GENERAL INFORMATION:
APPLICANT: Vincent Ling
APPLICANT: Xyriaki Dunussi-Joannopoulos
TITLE OF INVENTION: NOVEL GL50 MOLECULES AND USES THEREFOR
FILE REFERENCE: GUN-007
CURRENT APPLICATION NUMBER: US/09/667,135
CURRENT FILING DATE: 2000-09-21
NUMBER OF SEQ ID NOS: 38
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 33
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; SOFTWARE: PatentIn Ver.; SEQ ID NO 22; LENGTH: 309; TYPE: PRT CRGANISM: Mus musculus US-09-651-200-22
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US-09-651-200-22
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Best Local S
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Matches 12; Conserv
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                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: 60/
PRIOR FILING DATE: 2000-02-18
NUMBER OF SEQ ID NOS: 25
                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/99/651,200
CURRENT FILING DATE: 2000-08-30
PRIOR APPLICATION NUMBER: 60/152383
PRIOR FILING DATE: 1999-09-03
PRIOR APPLICATION NUMBER: 60/172909
PRIOR FILING DATE: 1999-12-21
                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Green et al TITLE OF INVENTION: Polynucleotides Encoding Members of the Human B TITLE OF INVENTION: Lymphocyte Activation Antigen B-7 Family and TITLE OF INVENTION: Polypeptides Encoded Thereby
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (617)227-5941
INFORMATION FOR SEQ ID NO: 21:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: BWI-
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227-7400
TELEPAX: (617)227-5941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE: protein
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                                                                 y Match
Local Similarity 100.0%; Pred. No. 0.0
hes 12; Conservative 0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22, Application US/09651200
5. 6429303
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93
                                  87 WILKLHNVQIKD 98
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 WILRLHNVQIKD 104
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                                                                                                                                                                                                                                                                                                                                                                                                                         ON: Polypeptides Encoded 15966-562 (CURA-62)
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100.0%; Pred. No. 0.0
7ative 0; Mismatches
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hes 0; Indels
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Run on:

OM protein - protein search, using sw model

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd

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Title:
Perfect score:
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Maximum DB seq length: 200000000
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1: /cgn2 6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*

2: /cgn2 6/ptodata/2/pubpaa/PCT_NEW_PUB.pep:*

3: /cgn2 6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*

4: /cgn2 6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*

5: /cgn2 6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

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10: /cgn2 6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

11: /cgn2 6/ptodata/2/pubpaa/US09A_PUBCOMB.pep:*

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13: /cgn2 6/ptodata/2/pubpaa/US09B_PUBCOMB.pep:*

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16: /cgn2 6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*

16: /cgn2 6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*

17: /cgn2 6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*

18: /cgn2 6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*

19: /cgn2 6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*

20: /cgn2 6/ptodata/2/pubpaa/US1D_PUBCOMB.pep:*
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Match
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Gapop 60.0 ,
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      Gapext 60.0
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  6 US-10-790-396-36

6 US-10-790-396-31

6 US-10-790-396-17

6 US-10-087-192-1077

0 US-09-441-411-15

0 US-09-441-411-20

7 US-10-762-128-15

7 US-10-762-128-20

US-09-425-762-23

US-09-837-867A-21
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US-09-303-040-6
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Sequence 6, Appli
Sequence 6, Appli
Sequence 26, Appl
Sequence 31, Appl
Sequence 17, Appl
Sequence 1077, Ap
Sequence 1077, Ap
Sequence 20, Appl
Sequence 20, Appl
Sequence 15, Appl
Sequence 23, Appl
Sequence 21, Appl
                                                                                                                                                                                                                                                                                                 Description
                                                                                                                                                                                                                                                                                          Sequence 6, Application US/09303510A

Patent No. US2020028208A1

GENERAL INFORMATION:
APPLICANT: Collisson, Ellen W.
APPLICANT: Collisson, Ellen W.
APPLICANT: Choi, InSoo

ITILE OF INVENTION: Feline CD80, Feline CD28, and
ITILE OF INVENTION: CFLA-4 Nucleic Acid and Polypeptides

FILE REFERENCE: 54954

CURRENT APPLICATION NUMBER: US/09/303,510A

CURRENT APPLICATION NUMBER: 60/083,869

EARLIER APPLICATION NUMBER: 60/083,869

EARLIER FILING DATE: 1998-05-01

NUMBER OF SEO ID NOS: 83

SOFTWARE: PatentIn Ver. 2.1

LENGTH: 329

TYPE: PRT
ORGANISM: Feline

US-09-303-510-6
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US-09-303-510-6
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US-09-425-762-45	S-10-696-259-1	-10-643-768-4	-962-969-	09-837-867A-4	S-10-727-00	-10-762-128-1	0-762-128-1	-10-762-128-	10-762-128-1	S-09-441-411-	9-441-411-1	9-441-411-1	-09-441-411-1	-10-727-000-	-10-762-128-1	-10-762-128-1	-10-643-768-	9-962-969-1	-09-441-411-1	S-09-441-411-	09-837-867A-1	-10-429-079B-	-10-762-128-2	-762-128-1	-10-762-128-1	10-643-768-2	-10-318-855-3	S-09-962-969-2	-09-4	S-09-441-411-1	US-09-441-411-13
45,	Sequence 18, App	e 42, App	equence 42,	quence 42, Appl	equence 3, Appl	ence 17, App	equence 16, App	equence 12,	equence 11, App	equence 17, App	equence 16, App	equence 12, App	equence 11,	equence 2, Appl	equence 19, App	equence 14, App	equence 13, App	equence 13, App	equence 19, App	ce 14,	quence 13,	quence 23,	equence 24,	,	equence 13, App	nce 21,	equence 33, App	equence 21,	quence 24, App	equence 18,	ω •

## ALIGNMENTS

and Feline

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RESULT 2

US-09-303-040-6

| Sequence 6, Application US/09303040

| Patent No. US20020051792A1
                                                                                                                          Query Match
Best Local S
Matches 14
                                                                         87 WTLRLHNVQIKDKG 100
                                                                                                                            14;
                                                                                                                          h 4.2%; So Similarity 100.0%; I 14; Conservative 0;
                                                                                                                          Score 14; DB 9; Le; pred. No. 8.1e-05; 0; Mismatches 0;
                                                                                                                                                   Length 329;
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US-10-790-396-31

Sequence 31, Application US/10790396

Publication No. US20040157296A1

GENERAL INFORMATION:
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                                                                                                                                                                   RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                      ; ORGANISM: Felis catus US-10-790-396-26
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US-09-303-040-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Sim, Gek-Kee
APPLICANT: Sim, Gek-Kee
APPLICANT: Sellins, Karen S.

TITLE OF INVENTION: NOVEL FORMS OF T CELL COSTIMULATORY
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-1-C1-PCT
CURRENT FILING DATE: 2004-03-01
PRIOR APPLICATION NUMBER: US/09/646,561
PRIOR APPLICATION NUMBER: US/09/646,561
PRIOR RETING DATE: 2000-09-19
PRIOR FILING DATE: 2000-09-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/303,040
CURRENT FILING DATE: 1999-04-30
EARLIER APPLICATION NUMBER: 60/083,870
EARLIER FILING DATE: 1998-05-01
NUMBER OF SEQ ID NOS: 82
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 6
LENGTH: 329
TYPE: DET
                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Ver.
SEQ ID NO 26
LENGTH: 332
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Best Local :
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Sequence 26, Application US/10790396
Publication No. US20040157296A1
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Best Local (
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APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Sellins, Karen S.
TITLE OF INVENTION: NOVEL FORMS OF T CELL COSTIMULATORY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: 09/062,597
PRIOR FILING DATE: 1998-04-17
NUMBER OF SEQ ID NOS: 65
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Winslow, Barbara J.
APPLICANT: Cochran, Mark D.
TITLE OF INVENTION: Recombinant Virus Expressing Foreign DNA Encoding
TITLE OF INVENTION: Feline CD80, Feline CD86, Feline CD28, Feline CTLA-4 or
TITLE OF INVENTION: Feline Interferon-gama And Uses Thereof
FILE REFERENCE: 54957-B
                                                                                                                                                                                                                                                                87 WILRLHNVOIKDKG 100
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14; Conserv
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100.0%; Pred. No.
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Pred. No.
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      PROTEINS, NUCLEIC
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TYPE: PRT
ORGANISM: Canis familiaris
US-10-790-396-17
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US-10-790-396-17
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US-10-790-396-7
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; TYPE: PRT
; ORGANISM: Felis catus
US-10-790-396-31
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CURRENT FILING DATE: 2004-03-01
PRIOR APPLICATION NUMBER: US/09/646,561
PRIOR FILING DATE: 2000-09-19
PRIOR APPLICATION NUMBER: 60/078,765
PRIOR APPLICATION NUMBER: 60/078,765
PRIOR FILING DATE: 1998-03-19
PRIOR FILING DATE: 1998-03-17
PRIOR FILING DATE: 1998-04-17
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CURRENT FILING DATE: 2004-03-01
PRIOR APPLICATION NUMBER: US/09/646,561
PRIOR FILING DATE: 2000-09-19
PRIOR APPLICATION NUMBER: 60/078,765
PRIOR APPLICATION NUMBER: 60/078,765
PRIOR FILING DATE: 1998-03-19
PRIOR APPLICATION NUMBER: 09/062,597
PRIOR FILING DATE: 1998-04-17
NUMBER OF SEQ ID NOS: 65
                                                 Sequence 7, Application US/10790396
Publication No. US20040157296A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Sellins, Kazen S.
                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local :
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SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 17
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Best Local Similarity 100.
Matches 13; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Sellins, Karen S.
APPLICANT: Sellins, Karen S.
TITLE OF INVENTION: NOVEL FORMS OF T CELL COSTIMULATORY
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-1-C1-PCT
APPLICANT: Yang, Shumin
APPLICANT: Sellins, Karen S.
TITLE OF INVENTION: NOVEL FORMS OF T CELL COSTIMULATORY
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
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13; Conserv
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100.0%; Pred. No.
vative 0; Mismatc
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100.0%; Pred. No. 0.00066;
n. Mismatches 0;
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RESULT 8
US-09-441-411-15
; Sequence 15, Application US/09441411
; Publication No. US/0030008342A1
; Publication No. US/003008342A1
; GENERAL INFORMATION:
; APPLICANT: Scholler, Nathalie B.
; APPLICANT: Disis, Mary L.
; APPLICANT: Hellstrom, Ingegerd
; APPLICANT: Hellstrom, Karl Erik
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILE REFERENCE: 529452000122
CURRENT APPLICATION NUMBER: US/10/087,192
CURRENT FILING DATE: 2002-03-01
PRIOR APPLICATION NUMBER: US 09/747,377
PRIOR APPLICATION NUMBER: US 09/798,586
PRIOR APPLICATION NUMBER: US 09/798,586
PRIOR FILING DATE: 2001-03-02
NUMBER OF SEQ ID NOS: 2059
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 1077
LENGTH: 230
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; NAME/KBY: VARIANT
; LOCATION: (1)...(230)
; OTHER INFORMATION: Xaa = Any Amino Acid
US-10-087-192-1077
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CURRENT APPLICATION NUMBER: US/10/790,396
CURRENT TILING DATE: 2004-03-01
PRIOR APPLICATION NUMBER: US/09/646,561
PRIOR FILING DATE: 2000-09-19
PRIOR PPLICATION NUMBER: 60/078,765
PRIOR PPLICATION NUMBER: 60/078,765
PRIOR FILING DATE: 1998-03-19
PRIOR APPLICATION NUMBER: 09/062,597
PRIOR APPLICATION NUMBER: 09/062,597
PRIOR FILING DATE: 1998-04-17
PUMBER OF SEQ ID NOS: 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1077, Application US/10087192 Publication No. US20020182586A1 GENERAL INFORMATION:
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SEQ ID NO 7
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Best Local :
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TITLE OF INVENTION: NOVEL COMPOSITIONS AND METHODS FOR
TITLE OF INVENTION: CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Morris, David W. APPLICANT: Engelhard, Eric
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TYPE: PRT
ORGANISM: Canis familiaris
TITLE OF INVENTION: SURFACE RECEPTOR ANTIGEN VACCINES
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ORGANISM: Mus musculus
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nes 13; Conserv
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                                                                                                                                                                                                                                                                                                87 WTLRLHNVQIKD 98
                                                                                                                                                                                                                                                                                                                                        ch 3.6%; Score 12; DB 13; 1 Similarity 100.0%; Pred. No. 0.0052; 12; Conservative 0; Mismatches 0
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100.0%; Pred. No. 0.00076;
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; FILE REFERENCE: 730033.409
; CURRENT APPLICATION NUMBER: US/09/441,411
; CURRENT FILING DATE: 199-11-16
; NUMBER OF SEQ ID NOS: 26
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 303
; TYPE: PRT
; ORGANISM: Mus musculus
US-09-441-411-15
                                             APPLICANT: Scholler, Nathalie B.
APPLICANT: Disis, Mary L.
APPLICANT: Disis, Mary L.
APPLICANT: Hellstrom, Ingegerd
APPLICANT: Hellstrom, Ingegerd
APPLICANT: Hellstrom, Karl Erik
ITILE OF INVENTION: SURFACE RECEPTOR ANTIGEN VACCINES
FILE REPERENCE: 73003.409C1
CURRENT APPLICATION NUMBER: US/10/762,128
CURRENT FILING DATE: 2004-01-20
PRIOR APPLICATION NUMBER: US 09/441,411
PRIOR FILING DATE: 1999-11-16
NUMBER OF SEQ ID NOS: 26
SOSTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 15
LENGTH: 303
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; ORGANISM: Mus musculus
US-09-441-411-20
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US-10-762-128-15
; TYPE: PRT; ORGANISM: Mus musculus US-10-762-128-15
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CURRENT FILING DATE: 1999-11-16
NUMBER OF SEQ ID NOS: 26
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 20
SEQ ID NO 20
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Best Local Similarity
Matches 12; Conserv
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Best Local Similarity
Matches 12; Conserv
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APPLICANT: Disis, Mary L.
APPLICANT: Hellstrom, Ingegerd
APPLICANT: Hellstrom, Karl Brik
TITLE OF INVENTION: SURFACE RECEPTOR ANTIGEN VACCINES
FILE REFERENCE: 730033.409
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100.0%; Pred. No. 0.0067;
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Pred. No. 0.0067;
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APPLICANT: Scholler, Nathalie B.
APPLICANT: Dists, Mary L.
APPLICANT: Hellstrom, Ingegerd
APPLICANT: Hellstrom, Ingegerd
APPLICANT: Hellstrom, Karl Erik
TITLE OF INVENTION: SURFACE RECEPTOR ANTIGEN VACCINES
FILS REFERENCE: 730033.409C1
CURRENT APPLICATION NUMBER: US/10/762,128
CURRENT APPLICATION NUMBER: US/4041.411
CURRENT FILING DATE: 2004-01-20
PRIOR APPLICATION NUMBER: US 09/441,411
PRIOR APPLICATION NUMBER: US 09/441,411
PRIOR FILING DATE: 1999-11-16
NUMBER OF SEQ ID NOS: 26
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 20
LENGTH: 303
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; ORGANISM: Mus musculus
US-10-762-128-20
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US-10-762-128-20
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APPLICANT: Freeman
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Best Local Similarity
Matches 12; Conserv
                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: TEM FC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION UMBER: US/09/425,762
FILING DATE:
                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD, LLP
STREET: 60 State Street
                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.
APPLICANT: Gray, Gary S.
TITLE OF INVENTION: No. 6605279el CTLA4/CD28 Ligands and
TITLE OF INVENTION: Uses Therefor
NUMBER OF SEQUENCES: 55
                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER:
ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity nes 12; Conserv
                                                                                               CLASSIFICATION:
                                                                                                                                                                                                                                                                COUNTRY: UZIP: 02109
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No. US20020086414A1
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Pred. No.
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; Sequence 13, Application US/09441411
; Publication No. US20030008342A1
                                                                                                                                                                                                                                                                                                              RESULT 14
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; TYPE: PRT
; ORGANISM: Mus musculus
US-09-837-867A-21
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US-09-837-867A-21
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CURRENT APPLICATION NUMBER: US/09/441,411
CURRENT FILING DATE: 1999-11-16
NUMBER OF SEQ ID NOS: 26
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 13
LENGTH: 309
                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQ ID NOS: 42
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 21
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Best Local
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Best Local Similarity 100.0%;
                                                                                                               APPLICANT: Scholler, Nathalie B.
APPLICANT: Disis, Mary L.
APPLICANT: Hellstrom, Ingegerd
APPLICANT: Hellstrom, Karl Erik
TITLE OF INVENTION: SURFACE RECEPTOR ANTIGEN VACCINES
FILE REFERENCE: 730033.409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Sharpe, Arlene H.

APPLICANT: Borriello, Francescopaulo
APPLICANT: Freeman, Gordon J.

APPLICANT: Nadler, Lee M.

TITLE OF INVENTION: No. US20020098542A1el Forms of T Cell Costimulatory
TITLE OF INVENTION: Molecules and Uses Therefor
FILE REFERENCE: BWI-120CPADV
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TELECOMMUNICATION: INFORMATION:
TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-5941
INFORMATION FOR SEQ. ID NO: 23:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/837,867A CURRENT FILING DATE: 2001-04-17 PRIOR APPLICATION NUMBER: 08/205,697 PRIOR FILING DATE: 1994-03-02
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TOPOLOGY: linea
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                                                                                                                                                                                                                                                                                                                                                                                                           87 WILRLHNVOIKD 98
                                                                                                                                                                                                                                                                                                                                                                                                                                              3.6%; Score 12; DB 9; (1 Similarity 100.0%; Pred. No. 0.0068; 12; Conservative 0. Minmar-1
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RR: RPI-004CP3
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Pred. No. 0.0068;
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Page 5
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US-09-441-411-18

(US-09-441-411-18

(Sequence 18, Application US/09441411

(Publication No. US20030008342A1

(GENERAL INFORMATION:
APPLICANT: Disis, Mary L.
APPLICANT: Disis, Mary L.
APPLICANT: Hellstrom, Karl Brik
APPLICANT: Hellstrom, Karl Brik
ITITLE OF INVENTION: SURFACE RECEPTOR ANTIGEN VACCINES
FILE REFERENCE: 73003.409

(CURRENT APPLICATION NUMSHER: US/09/441,411

(CURRENT FILING DATE: 1999-11-16

NUMBER OF SEQ ID NOS: 26

(SOFTWARE: FESCEE) for Windows Version 4.0

(SEQ ID NO 18

LENGTH: 309

TYPE: PRT
ORGANISM: Mus musculus

US-09-441-411-118
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Search completed: December 15, 2004, 17:12:44
Job time : 145 secs
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                                                                                                                                                                         Query Match 3.6%; Score 12; DB 10; Length 309; Best Local Similarity 100.0%; Pred. No. 0.0068; Matches 12; Conservative 0; Mismatches 0; Indels .
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93 WTLRLHNVQIKD 104
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## ALIGNMENTS

R;Freeman, G.J.; Borriello, F.; Hodes, R.J.; Reiser, H.; Gribben, J.G.; Ng, J.W.; Kim, J.Exp. Med. 178, 2185-2192, 1993
A;Title: Murine B7-2, an alternative CTLA4 counter-receptor that costimulates T cell properties number: 149522, MUID:94065585; PMID:7504059
A;Accession: I49522

gene B7-2 protein - mouse
C;Species: Mus musculius (house mouse)
C;Date: (02-Jul1-1996 #sequence\_revision 02-Jul-1996 #text\_change 09-Jul-2004
C;Accession: I49522

A;Status: preliminary; translated from GB/EMBL/DDBJ A;Molecule type: mRNA A;Residues: 1-309 <RES>

A;Cross-references: UNIPROT:P42082; GB:L25606; NID:g432478; PIDN:AAA79770.1; PID:g43247

A;Gene: B7-2 C;Superfamily: B7-2 antigen

C; Genetics:

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CD86 spliced variant CD86 deltaEC isoform - human
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Date: 30-Jun-2001 #sequence_revision 30-Jun-2001 #text_change 09-Jul-2004
C;Date: 30-Jun-2001 #sequence_revision 30-Jun-2001 #text_change 09-Jul-2004
C;Accession: JC7605
R;Magistrelli, G; Caron, G; Gauchat, J.F.; Jeannin, P.; Bonnefoy, J.Y.; Delneste, Y.
Blochem. Biophys. Res. Commun. 280, 1211-1215, 2001
A;Title: Identification of an alternatively spliced variant of human CD86 mRNA.
A;Reference number: JC7604; MUID:21092744; PMID:11162656
A;Accession: JC7605
A;Accession: JC7605
A;Molecule type: mRNA
A;Molecule type: mRNA
A;Molecule type: mRNA
A;Residues: 1-110 <MAGP
A;Cross-references: UNIPROT:P42081
C;Comment: This CD86 variant expressed by nonstimulated human monocytes, as a membrane
                                                                                                                        C;Genetics:
A;Gene: cd86deltaEC
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Best Local Similarity 100.0%; Pred. No. 0.00039;
Matches 12; Conservative 0; Mismatches 0;
Query Match 3.0%; Score 10; DB 2; Le Best Local Similarity 100.0%; Pred. No. 0.019; Matches 10; Conservative 0; Mismatches 0;
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A; Residues:
C; Comment: Ti
C; Genetics:
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C; Superfamily: B7-2 antigen
C; Keywords: glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A, Title: Cloning of B7-2: a CTLA-4 counter-receptor that A; Reference number: A48754; MUID:94053735; PMID:7694363 A; Accession: A48754 A; Status: preliminary.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N;Alternate names: B70 glycoprotein; CD86 antigen; CTLA-4 counter-receptor C;Species: Homo sapiens (man)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C;Accession: A48754; S39055
R;Freeman, G.J.; Gribben, J.G.; Boussiotis, V.A.; Ng, J.W.; Restivo Jr., V. Science 262, 909-911, 1993
                                                                                                                                                                                                                                                                              A; Molecule type: mRNA
A; Residues: 7-329 < AZU>
A; Cross-references: GB: C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: UNIPROT:P42081; GB:L25259; NID:g416368; PIDN:AAA58389.1; PID:g416368; A;Note: it is uncertain whether Met-1 or Met-7 is the initiator R;Azuma, M.; Ito, D.; Yagita, H.; Okumura, K.; Phillips, J.H.; Lanier, L.L.; Somoza, C. Nature 366, 76-79, 1993
A;Title: B70 antigen is a second ligand for CTLA-4 and CD28.
A;Reference number: S39055; MUID:94050123; PMID:7694153
                                                                                                                                                                                                                                    A;Gene: GDB:CD86; CD28LG2
A;Cross-references: GDB:4
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A;Title: Identification of an alternatively spliced variant of human CD86 mRNA.
A;Reference number: JC7604; MUID:21092744; PMID:11162656
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;Date: 30-Jun-2001 #sequence_revision 30-Jun-2001 #text_change 18-Nov-2002
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tonic dystrophy kinase.
A;Reference number: 860958
A;Accession: 860967
A;Molecule type: DNA
A;Residues: 1-354 <NAS>
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A; Variety: PCC 6803
C.Date: 25-Apr-1997 #sequence_revi
C.Accession: S74562
R.; Kaneko, T.; Sato, S.; Kotani, H.
O, K.; Okumura, S.; Shimpo, S.; Ta
DNA Res. 3, 109-136, 1996
                                                                                                                                         YGP1 protein precursor - yeast (Saccharomyces cerevisiae)
N/Alternate names: glycoprotein 38; protein N1731; protein YNL160w
C/Species: Saccharomyces cerevisiae
C/Date: 15-Feb-1996 #sequence revision 01-Mar-1996 #text_change 09-Jul-2004
C/Accession: S60967; A55542; S63112; S63814; S33203
R/Nasr, F.; Becam, A.M.; Herbert, Cotober 1995
A,Description: The sequence of 36.8 kb from the left arm of chromosome XIV
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A;Cross-references: UNIPROT:P72707; EMBL:D90900;
A;Note: the nucleotide sequence was submitted to
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A;Title: Cloning and sequencing of the rabbit gene encoding A;Reference number: I46689; MUID:95369849; PMID:7642234
A;Accession: I46691
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C;Superfamily: B7-2 antigen
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C;Date: 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 09-Jul-2004
C;Accession: 146691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Title: Sequence analysis of the genome of the unicellular cyanobacterium Synechocysti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       hypothetical protein sll0224 - Synechocystis sp. (strain PCC 6803)
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A; Residues: 1-330 < ISO>
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;Cross-references: UNIPROT:P38616; EMBL:X92517; NID:g1050783; Destruelle, M.; Holzer, H.; Klionsky, D.J.
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ada, T.; Watanabe, A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GB:AB001339; NID:ģ1651768; PIDN:BAA167
the EMBL Data Library, June 1996
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                      PID:g1050792
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da, M.; Yasud
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R;Nasr, F.; Becam, A.M.; Nellett, J. 1996
Yeast 12, 169-175, 1996
A;Title: The sequence of 36.8 kb from the left arm of chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Status: preliminary
A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1-46,'D',48-78,'R',80-354 <DES>
A;Cross-references: GB:X73030; NID:g297484; PIDN:CAA51513.1; PID:g297485
A;Note: authors translated the codon ACT for residue 225 as Trp
R;Nasr, F:, Becam, A.M.; Herbert, C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Molecule type: DNA
A;Residues: 1-354 <NAM>
A;Residues: 1-354 <NAM>
A;Cossidues: 1-354 <NAM
A;Cossidues: 1-354 <NAM
A;Cossidues: 1-354 <NAM
Yeast 12, 169-175, 1996
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submitted to the Protein Sequence Database,
A;Reference number: S62967
A;Accession: S63112
                                                                                                                                                                                                                                                                                                           A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1-823 <CHU>
A;Cross-references: UNIPROT:P38928; GB:Z47047; EMBL:Z38059; NID:g603997; PID:g763206; MI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Species: Saccharomyces cerevisiae C;Date: 02-Dec-1994 #sequence_revision C;Accession: S48394; S50276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           probable membrane protein YIL140w - yeast (Saccharomyces cerevisiae)
C;Species: Saccharomyces cerevisiae
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A;Molecule type: DNA
A;Residues: 1-354 <NAF>
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A;Accession: $63814
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                                                                                    A;Status: nucleic acid sequence not shown; tra
A;Molecule type: DNA
A;Residues: 80-823 <TOR>
A;Cross-references: EMBL:U07228; NID:9460247;
A;Note: the nucleotide sequence was submitted
C;Genetics:
                                                                                                                                                                                                                            R;Torpey, L.E.; Gibbs, P.E.M.; Nelson, J.; Yeast 10, 1503-1509, 1994
A;Title: Cloning and sequence of REV7, a ge A;Reference number: S50275; MUID:95176709; A;Accession: S50276
                                                                                                                                                                                                                                                                                                                                                                                                                   submitted to the EMBL Data Library, A;Reference number: S48310 A;Accession: S48394
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R; Churcher, C.
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A;Note: the nucleotide sequence was submitted to the EMBL Data Library, Octo
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                                                                     A;Gene: SGD:SRO4
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Accession: A56542
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Superfamily: Saccharomyces cerevisiae probable
                                          Cross-references: SGD:S0001402; MIPS:YIL140w
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8; Conserv
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709; PMID:7871890
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                                                                                                               PIDN:AAA67919.1; PID:g460249
to the EMBL Data Library, March 1994
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membrane protein YIL140w
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Larbohydr. Res. 229, 347-353, 1992
A;Title: New mannose-specific lectins from garlic (A;Reference number: A46972; MUID:9300A^7^ A;Racession: A48972
A;Status: prelici
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N;Alternate names: HLA-A23
C;Species: Homo sapiens (man)
C;Date: 29-May-1998 #sequence_revision 29-May-1998 #text_change 09-Jul-2004
C;Accession: I38418; I38419
R;Balas, A.; Garcia-Sanchez, F.; Gomez-Reino, F.; Vicario, J.L.
Hum. Immunol. 41, 69-73, 1994
A;Title: HLA class I allele (HLA-A2) expression defect associated with a mu A;Reference number: I38417; MUID:95137784; PMID:7836067
A;Accession: I38418
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I38418
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A48972
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                                                                                                   A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-34 <ARK>
A;Experimental source: bulb
A;Note: sequence extracted i
                                                                                                                                                                                                                                          C;Species: Allium ursinum (ramson)
C;Date: 19-Dec-1993 #sequence_revision 18-Nov-1994 #text_change
C;Accession: A48972
R;Kaku, H.; Goldstein, I.J.; Van Damme, B.J.; Peumans, W.J.
Carbohydr. Res. 229, 347-353, 1992
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A;Map position: 6p21.3
C;Superfamily: class I histocompatibility antigen;
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A; Residues: 1-20 < RE2 >
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A; Residues: 1-20 < RES>
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100.0%; Pred. No. 13
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100.0%; Pred. No. 8.4;
tive 0; Mismatches
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100.0%; Pred. No.
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PMID:1394291
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R; Chambaud, I.; Heilig, R.; Ferris, S.; Barbe, V.; Samson, D.; Galisson, F.; Moszer, Nucleic Acids Res. 29, 2145-2153, 2001
A; Title: The complete genome sequence of the murine respiratory pathogen Mycoplasma A; Reference number: A99512; MUID:21267165; PMID:11353084
A; A; Accession: G90536
A; Status: preliminary
                                                                                                                                                                                             hypothetical
C;Species: My
C;Date: 24-Ma:
C;Accession:
R;Chambaud, I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Cross-references: UNIPROT:P06465; GB:V01116; GB:X03321; NID:g60966; PIDN:CAA24316. R;Danos, O.; Engel, L.W.; Chen, E.Y.; Yaniv, M.; Howley, P.M. J. Vivol. 46, 557-566, 1983
A;Title: Comparative analysis of the human type 1a and bovine type 1 papillomavirus A;Reference number: A92993; MUID:83189357; PMID:6302319
A;Contents: annotation
C;Keywords: DNA binding; early protein; transcription regulation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 E7 protein - human papillomavirus type 1a (;Species: human papillomavirus type 1a (;Species: human papillomavirus type 1a (;Date: 30-Sep-1987 #sequence_revision 30-Sep-1987 #text_change 09-Jul-2004 (;Accession: C17475 R;Danos, O.; Katinka, M.; Yaniv, M. RMBO J. 1, 231-236, 1982 R;Title: Human papillomavirus 1a complete DNA sequence: a novel type of genula;Reference number: A90970; MUID:84182467; PMID:6325156 A;Accession: C17475
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W7WL
A;Molecule type: DNA
A;Residues: 1-101 <KUS
A;Cross-references: UNIPROT:Q98R11; GB:AL445566; PID:g14089612; PIDN:CAC13372.1;
A;Experimental source: strain UAB CTIP
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A;Molecule type: protein
A;Residues: 1-38 <MOH>
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A;Title: Purification and characterization of a mannose-specific A;Reference number: S39376; MUID:94029015; PMID:8215447
                                                                                                                                                                                                                                                                                                                                 RESULT
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A; Residues: 1-93 < DAN>
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;Species: Mycoplasma pulmonis
;Date: 24-May-2001 #sequence_revision 24-May-2001 #text_change 09-Jul-2004
;Accession: G99536
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;Date: 19-May-1994
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A; Gene: DKZUIB
A; Map position:
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A; Map position: 2
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R;White, O.; Eisen, J.A.; Heidelberg, J.F.; Hickey, M.; Shen, M.; Vamathevan, J.J.; Lam, P.; McDonald, S.; Smith, H.O.; Venter, J.C.; Fraser, C.M. Science 286, 1571-1577, 1999
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A;Gene: MYPU 1990
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A;Experimental source: strain R1
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C;Species: Deinococcus radiodurans
C;Species: Deinococcus radiodurans
C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004
C;Accession: F75327
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C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004
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A; Residues: 1-149
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A;Title: Genome sequence of the radioresistant bacterium A;Reference number: A75250; MUID:20036896; PMID:10567266
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A;Cross-references: UNIPROT:Q9RYV9; GB:AE001862;
A;Experimental source: strain Rl
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A;Reference number: A75250; MUID:20036896; PMID:10567266
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Sus scrofa (Pig).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae;
NCBI_TaxID=9823;
[1]
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J. Immunol. 157:3838-3844(1996).
EMBL; L76099; AAB61307.1; -.
EMSP; P42081; INCN.
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InterPro; IPR003596; Ig_v.
Pfam; PR00047; ig; 1.
SMART; SM00406; IGv; 1.
PROSITE; P850835; IG_LIKE; 1.
SEQUENCE 325 AA; 36527 MW; 988BE08137B0597D CRC64;
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MEDLINE=97047772; PubMed=8892613;
Maher S.E., Karmann K., Min W., H
Bothwell A.L.;
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residues

Post-processing: Listing first 45

summaries

UniProt\_02:\*
1: uniprot\_sprot:\*
2: uniprot\_trembl:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed and is derived by analysis of the total score distribution.

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Scoring table:

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GenCore version 5.1.6 (c) 1993 - 2004 Compugen Ltd.

December 15, 2004, 16:38:47; Search time 196 Seconds (without alignments) 968.743 Million cell updates/sec

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05-JUL-2004 (TrEMBLrel. 2
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CD86 (Fragment).
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Q9GKJ5;
01-MAR-2001
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NON TER
SEQUENCE
     AAS48374
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MEDLINE=21419000; PubMed=11528129;

Van Poucke M., Yerle M., Tuggle C., Piumi F.,

Van Zeveren A., Peelman L.J.;

"Integration of portoine chromosome 13 maps.";

Cytogenet. Cell Genet. 93:297-303(2001).

EMBL; AF222915; AAG41128.1; -.
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01-MAR-2001 (TrEMBLrel. 16,
01-MAR-2001 (TrEMBLrel. 16,
Costimulatory B-lymphocyte;
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Mammalia; Eutheria;
NCBI_TaxID=9823;
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Mammalia; Eutheria;
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Cetartiodactyla; Suina; Suidae;
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01-MAR-2001 (TrEMBLrel. 1
01-OCT-2003 (TrEMBLrel. 2
CD86 antigen (Fragment).
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NOTIMING J., Brown W.C.;

"Bovine CD86 3'UTR.";

Submitted (JAN-2004) to the EN
EMBL; AX533888; AAAS48374.1; -

NON TER
NOW TER
SEQUENCE 93 AA; 10281 MW;
Q9XSX6 PRELIMINARY;
Q9XSX6;
01-NOV-1999 (TrEMBLrel. 1
01-NOV-1999 (TrEMBLrel. 1
01-OCT-2003 (TrEMBLrel. 2
CD86 antigen.
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Brooke G.P., Howard C.J., Parsons K.R.;
Brooke G.P., Howard C.J., Parsons K.R.;
Submitted (OCT-2000) to the EMBL/GenBank/DDBJ
EMBL; AU291475; CAC13140.1; -.
InterPro; IPR007110; Ig-like.
InterPro; IPR003596; Ig_v.
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SMART; SM00406; IGv; 1.

PROSITE; PS50835; IG LIKE; 1.

NON TER 284

SEQUENCE 284 AA; 32021 MW;
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Eukaryota; Metazoa;
Mammalia; Eutheria;
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Eukaryota; Metazoa;
Mammalia; Eutheria;
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Bovinae; Bos
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10-MAR-2004 (TrEMBLrel.
10-MAR-2004 (TrEMBLrel.
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Cetartiodactyla; Ruminantia; Pecora;
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cora; Bovidae;
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Name=CD86; Felis silvestris catu Eukaryota; Metazoa; C Mammalia; Eutheria; C

catus (Cat). Carnivora;

Chordata; Craniata; Vertebrata; Carnivora; Fissipedia; Felidae;

Euteleostomi; Felis.

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SORRETTERS OF SORREST 
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Q9GMZ7
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Best Local (
                                                                                              Matches
                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.

MEDLINE=20465322; PubMed=11029611;
Nishimura Y., Shimojima M., Miyazawa T., Sato E.,
Izumiya Y., Ikeda Y., Mikami T., Takahashi E.,
"Molecular cloning of the CDNA encoding the felin
activation antigen B7-1 (CD80) and B7-2 (CD86) ho
interact with human CTLA4-1g.";
EMBL; AB030652; BAB11688.1; -.

EMBL; AB030652; BAB11688.1; -.

EMSSP; P42081; INCN.
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HSSP; P42081; 1NCN.
Interpro; IPR007110; Ig-like.
Interpro; IPR003596; Ig_v.
SMART; SM00406; IGv; 1.
SMART; SM00406; IGv; 1.
PROSITE; P850835; IG LIKE; 1.
PROSITE; P359 AA; 37481 MW; !
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Q1-MAR-2001 (TrEMBLrel 1:

Q1-MAR-2001 (TrEMBLrel 1:

Q1-OCT-2003 (TrEMBLrel 2:

B-lymphocyte activation a:
                                                                                                                                                                                    PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Name=CD86;
Name=CD86;
Felis silvestris catus (Cat).
Felis silvestris catus (Cat).
Fikaryota; Metazoa; Chordata; Craniata; Vertebrata;
Fikaryota; Metazoa; Carnivora; Fissipedia; Felidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Choi I.-S., Hash S., Winslow B Submitted (JUN-1999) to the EM EMBL; AF157827; AAD42974.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=20180222; PubMed=10713336;
Choi I.S., Hash S.M., Winslow B.G., Collisson E.W.;
"Sequence analyses of feline B7 costinulatory molecules.";
Vet. Immunol. Immunopathol. 73:219-231(2000).
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                                                                                                                                                                               InterPro; IPR007110; Ig-like.
InterPro; IPR003596; Ig_v.
SMART; SM004606; IGy; 1.
PROSITE; PS50835; IG_LIKE; 1.
SEQUENCE 332 AA; 37812 MW;
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                                               WTLRLHNVQIKDKG 100
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ilarity 100.0%;
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16, Last sequence update)
25, Last annotation update)
antigen B7-2 (CD86).
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EMBL/GenBank/DDBJ
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J. 4.6e-05;
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5. 4.7e-05;
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HSSP; P42081; INCN.
InterPro; IPR007110; Ig-like.
InterPro; IPR003596; Ig-v.
SMART; SM00406; IGv; 1.
PROSITE; PS50835; IG_LIKE; 1.
SEQUENCE 332 AA; 37826 MW;
                                                                                                                                                                                                                                                                                                                           Immunogenetics 50:349-353(1999).
ENBL; AF106827; AAF117298.1; -.
HSSP; P42081; INCN.
InterPro; IPR007110; Ig-like.
InterPro; IPR003006; Ig_MHC.
InterPro; IPR003596; Ig_V.
SMART; SM00406; IGV; 1.
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01-DEC-2001
01-OCT-2003
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PROSITE;
SEQUENCE
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Canis familiaris (Dog).
Cunis familiaris (Dog).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Eukaryota; Metazoa; Chordata; Cranidae;
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Vet. Immunol Immunopathol. 81:15-21(2001).
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Eukaryota; Metazoa; Chordata; (
Mammalia; Eutheria; Carnivora;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
MEDLINE=21390213; PubMed=11498243;
Yang S., Sellins K.S., Powell T.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             molecules."
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"New forms of dog CD80 and CD86 transcripts that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=20093996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
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14; Conservative
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PS00290; IG MHC; UNKNOWN 1.
280 AA; 32265 MW; 3CBEBCA4D826A7F3 CRC64;
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Canis.
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RESULT 11
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OC SUkary
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Q9TTF2
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Best Local S
Matches 13
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01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
01-NOV-1995 (Rel. 44, Last annotation update)
05-JUL-2004 (Rel. 44, Last annotation update)
T lymphocyte activation antigen CD86 precursor (Activation B7-2 antigen) (Early T cell costimulatory molecule-1) (ETC-1).
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Q9TTF2;
01-MAY-2000
                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.

MEDLINE=94065585; PubMed=7504059;
Freeman G.J., Borriello F., Hodes R.J., Reiser H., G.
Freeman G.J., Borriello F., Hodes R.J., Reiser H., G.
Ng J.W., Kim J., Goldberg J.M., Hathcock K., Laszlo (
Wang S., Gray G.S., Nadler L.M., Sharpe A.H.;
"Murine B7-2, an alternative CTLA4 counter-receptor (
"Murine B7-2, an alternative CTLA4 counter-receptor (
"Total proliferation and interleukin 2 production.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
          MEDLINE=94230971;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE; PSS0835; IG LIKE; 1.
PROSITE; PS00290; IG MHC; UNKNOWN
SECULENCE 329 AA; 37774 MW; D98
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-MAY-2000 (TrEMBLrel.
01-MAY-2000 (TrEMBLrel.
01-MAR-2004 (TrEMBLrel.
                                            SEQUENCE OF 7-309
                                                                                                                                                                      Borriello
                                                                                                                                                                                                     MEDLINE=96094437; PubMed=7499829;
                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
STRAIN≈129;
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"New forms of dog CD80 and CD86 transcripts that
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                                                                                                                                    orriello F.,
Differential
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MBL; AF106826; AAF17297.1; -...

18SP; P42081; 1NCN.
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                                                                                                     rriello F., Oliveros J., Freem
ifferential expression of alte
Immunol. 155:5490-5497(1995).
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; IPR003006;
; IPR003596;
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             PubMed=7513726
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                                                                                                                                                                      G.J.,
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MGG; MGI:101773; Cuev.
InterPro; IPR007110; Ig_MHC.
InterPro; IPR003006; Ig_MHC.
PROSITE; PS50835; IG_LIKE; 1.
PROSITE; PS00290; IG_MHC; FALSE_NEG.
PROSITE; PS00290; IG_MHC; FALSE_NEG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Molecular cloning and expression of eamolecule-1 and its characterization as J. Immunol. 152:4929-4936 (1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collab between the Swiss Institute of Bioinformatics and the EMBL outst the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for comentities requires a license agreement (See http://www.isb-sib.ch/anor send an email to license@isb-sib.ch).
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U39456; AAC52334.1;
U39459; AAC52334.1;
U39459; AAC52334.1;
U39461; AAC52334.1;
U39462; AAC52334.1;
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U39461;
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U39465;
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Ig-like C2-type.
Potential.
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         DB 1;
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               Length 309;
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RC Expression driven by an MMTV-LTR enhancer;

RX MEDLINE-22388257; PubMed=12477932;

RX MEDLINE-22388257; PubMed=12477932;

RX Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

RA Strausberg R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,

RA Klausner R.D., Collins F.S., Buetow K.H., Schaefer C.F., Bhat N.K.,

RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

RA Brownstein M.J., Wodin T.B., Toshiyuki S., Carninci P., Prange C.,

RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

RA Pahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

RA Mhiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

RA Rodriguez A.C., Grimwood J., W., Schmut J., Wers R.M., Butterfield Y.S.,

RA Krzywinski M.I., Skalska U., Smailus D.S., Schnerch A., Schein J.E.,

RT "Geners E.J., Marra M.A.,

"Geners E.
                                                                                                                                                                                                           Query Match
Best Local
                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                    EMBL; BC013807; AAH13807.1; -...
HSSP; P42081; 1NCN.
MGD; MGI:101773; Cd86.
GO; GO:0009897; C:external side
InterPro; IPR007110; Ig-like.
InterPro; IPR003596; Ig_v.
SMART; SM00406; IGv; 1.
PROSITE; PS50835; IG LIKE; 1.
SEQUENCE 309 AA; 34713 MW;
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Q91YV7;
01-DEC-2001
01-DEC-2001
01-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Strausberg R.;
Submitted (SEP-2001) to the
school school state school sc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Generation and initial analysis of more than 15,000 and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
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STRAIN=CZECH II;
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Mammalia; Eutheria;
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93
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WILRLHNVOIKD 104
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; 34713 MW;
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an MMTV-LTR enhancer.;
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0.0045;
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RESULT 13 AAD25880

SEQUENCE

FROM

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AAD25882
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AC AAD25
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GN CD86.
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Best Local :
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Best Local (
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AAD25880;
02-MAR-2004
02-MAR-2004
02-MAR-2004
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02-MAR-2004
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02-MAR-2004
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                                                     Mus musculus (Mouse
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN=A/J; TISSUE=spleen;
Ma R.Z., Teuscher C.;
Submitted (MAY-1998) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; AF065898;
SEQUENCE 309;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ma R.Z., Teuscher C.;
Submitted (MAY-1998)
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Mammalia; Eutheria;
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Mammalia; Eutheria;
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                              NCBI_TaxID=10090;
                                                                                                                          CD86 antigen.
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AA; 34665 M
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Rodentia;
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Rodentia;
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Rodentia;
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Pred. No.
                                                       Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
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RC STRAIN=B10.S/J; TISSUE=spleen;
RA Ma R.Z., Teuscher C.;
RL Submitted (MAY-1998) to the EMBL/GenBank/DDBJ databases.
DR EMBL; AF065899; AAD25882.1; -.
SQ SEQUENCE 309 AA; 34665 MW; 8F58DCD1FB81D5EA CRC64;
SQ SEQUENCE 309 AA; 34665 MW; 8F58DCD1FB81D5EA CRC64;
Secret Local Similarity 100.0%; Pred. No. 0.0045;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
SQ 87 WTLRLHNVQIKD 98
93 WTLRLHNVQIKD 104
Db 93 WTLRLHNVQIKD 104
Search completed: December 15, 2004, 17:00:18
Job time: 199 secs
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